Environment Canada Environnement Canada

Canadian Environmental Protection Act

Reporting for the Domestic Substances List

Reporting For The Domestic Substances List

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Chapter I - INTRODUCTION

1.1 The Canadian Environmental Protection Act

The **Canadian Environmental Protection Act (CEPA)** provides the legislative basis for addressing pollution problems on land, in water and through all layers of the atmosphere. It establishes a comprehensive framework to manage toxic substances throughout their life cycle, from development and manufacture, through transport, distribution, use and storage, to safe disposal as waste. The **Canadian Environmental Protection Act** is the major federal environmental protection statute incorporating and building on earlier authorities, including the **Environmental Contaminants Act** and the **Clean Air Act**.

As part of a "cradle to grave" management approach to toxic substances, the **Substances New to Canada** provisions of CEPA (sections 25-32) will ensure that no new substance is introduced into the Canadian marketplace before information to determine whether the substance is toxic is submitted to the Minister of Environment and thoroughly evaluated by the Departments of Environment and National Health and Welfare. Extensive assessment of this data prior to manufacture or import will identify the potential of such substances to adversely impact on human health and the environment and ensure implementation of appropriate regulatory controls and, if necessary, prohibition of commercial use in Canada.

1.2 The Domestic Substances List

The Minister of Environment is obligated, under subsection 25(1) of CEPA, to compile a list of substances that, between January 1, 1984 and December 31, 1986, were:

a) manufactured in or imported into Canada in a quantity of not less than 100 kg in any one calendar year; or

b) in Canadian commerce or used for commercial manufacturing purposes in Canada.

This list, known as the **Domestic Substances List (DSL)**, will be the sole basis for determining whether a substance is "existing" or "new" to Canada and, consequently, the need for pre-notification and assessment prior to domestic manufacture or importation. Substances on the DSL are considered to be in use in Canada and will be exempt from notification. Manufacture and import of substances not on the DSL is prohibited under CEPA. Individuals or companies wishing to engage in either of these activities must provide detailed information packages for evaluation by technical experts of the Departments of Environment and National Health and Welfare.

1.3 The Non-domestic Substances List

The Minister of Environment is also obligated, under subsection 25(2), to compile a **Non-domestic Substances List (NDSL)** which will contain the names of substances not on the Domestic Substances List but believed to be in international commerce, although not yet in Canada. The intent is to recognize those substances that are not new to world commerce and to require less detailed information packages for these substances than for substances that would be new to both the Canadian marketplace and world commerce.

Environment Canada has chosen the list of over 58,000 substances known as the U.S. Toxic Substances Control Act (TSCA) Inventory of 1985 as being representative of substances that were in commercial use in an ecozone similar to Canada. As the United States accounts for approximately one-third of global trade in chemicals, the TSCA Inventory should be representative of the international marketplace. Once the Domestic Substances List has been prepared, all DSL entries[1] will be deleted from the non-confidential portion of the TSCA Inventory to yield the Non-domestic Substances List.[2]

1.4 Amendment of the Lists

In instances where a substance has been included on the Domestic Substances List, but is found subsequently not to meet the eligibility criteria of subsection 25(1) of CEPA, it will be deleted from the DSL and may, if appropriate, be added to the Non-domestic Substances List. Such corrections may be required if, in the course of a follow-up audit, the nominator of a substance for the DSL is unable to provide documentation to substantiate eligibility. In addition, amendments may be required to correct printing or other errors that result in the inclusion of an improper substance name.

1.5 Compilation of the Domestic Substances List

Information for the compilation of the DSL will be collected in two phases so as to minimize the overall effort required of industry.

During the initial phase (Phase I), approximately 200 major Canadian manufacturers and importers, selected by Environment Canada, in conjunction with an Inventory Task Group of industry representatives, will nominate eligible manufactured and imported substances. Using these nominations, a **Core Domestic Substances List** will be prepared which should include the significant fraction of chemicals being used in Canada.

During the second phase (Phase II), Canadian manufacturers and importers will be asked to review the Core DSL and nominate substances which they manufactured or imported but are not listed, in order to ensure their inclusion in the finalized version.

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1 Microorganisms, bacteria, fungi, enzymes and yeasts will also be deleted from the TSCA Inventory. Regulations addressing biotechnology and the products of biotechnology are presently being developed under CEPA and these control instruments will address such substances.

2 The NDSL may include confidential substances. Such entries are limited to substances in the confidential portion of the TSCA Inventory but not included on the DSL. Certification procedures are being developed by Environment Canada.

The Core DSL will be expanded to include all nominations received during Phase II which are consistent with the statutory criteria. Notice of this **Provisional Domestic Substances List** will be given in Canada Gazette I and a 90 day period allowed for comment and correction. During this review stage, users and others who can certify eligibility may nominate substances for the DSL, but only in accordance with criteria that satisfy the Minister that they were in Canadian commerce or used for commercial manufacturing purposes during the DSL reporting period. As well, Phase I and Phase II submitters should determine during this comments and corrections stage whether their original nominations have been properly included in the DSL. Comments received during this review period will be evaluated by Environment Canada and the Provisional DSL adjusted as required. The resulting list will be published in Canada Gazette II and for purposes of CEPA will constitute the DSL.

Any chemical not on the DSL will be subject to the CEPA mandatory notification regulations for new chemicals. As noted previously, the manufacturer or importer of a new chemical will be obliged to supply prescribed information and, upon request, any additional information needed to perform an adequate risk assessment prior to the introduction of the chemical into Canada. Depending on the nature and availability of information required, the cost of providing this information may be significant. *Manufacturers and importers can avoid unnecessary notifications by ensuring all eligible substances are nominated for inclusion on the DSL.*

During the compilation of the DSL, in addition to information directly relative to the nomination of substances, manufacturers and importers will provide data on site(s) of manufacture, provinces receiving imported substances, quantities of the nominated substance manufactured or imported in 1986 and the intended uses of the substance. The collection of this information as part of the compilation of the DSL was recommended by the multipartite Environmental Contaminants Act Amendments Consultative Committee, comprised of representatives of federal and provincial governments, industry, labour and environmental non-governmental organizations. Environment Canada is committed to implementation of this consensus recommendation.

Chapter II - GENERAL INFORMATION

2.1 Determining Who Reports

All Canadian manufacturers, importers and users of substances are potential reporters for the DSL. However, information collection has been structured to minimize the reporting burden on industry to the greatest extent possible.

The DSL will be compiled using information collected in two sequential phases, Phase I and Phase II, and a concluding correction/review period.

Phase I - Core DSL

Approximately 200 major manufacturers and importers will be individually contacted by Environment Canada and asked to report substances they manufactured and/or imported during the three year reporting period, January 1, 1984 - December 31, 1986. Companies not receiving a written request from Environment Canada to report should not report during this reporting phase. However, a manufacturer or importer, having a demonstrable need to report during this phase, should contact Environment Canada to request inclusion.

The substance information collected and processed during this phase, which meets the statutory criteria, will be used to prepare a list of substances known as the Core DSL.

Phase II - Provisional DSL

Phase II reporting will begin shortly after the publication of the Core DSL. ***During this phase, manufacturers and importers that did not report in Phase I will identify candidate substances for Phase II reporting by carefully reviewing the Core DSL.***

A candidate substance for reporting is

i) a substance **NOT** included on the Core DSL, but manufactured or imported during the three year reporting period;

or

ii) a substance **ON** the Core DSL and manufactured or imported in **EXCESS** of 1,000 kg during the 1986 calendar year.[3]

After Phase II reporting is complete, the Core DSL will be expanded to include all nominations received during Phase II which are consistent with the statutory criteria. This list of substances will be known as the Provisional DSL.

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[3] This is an accordance with the recommendation of the Environmental Contaminants Act Amendments Consultative Committee to both identify major manufacturers and importers and approximate quantities in commerce.

Correction and Review Period

Notice of the Provisional DSL will be given in Canada Gazette I, and a 90 day correction/review period will follow.

During this period:

1 **Users** should review the Provisional DSL and nominate substances that have not been included on the List for which eligibility can be substantiated. To avoid unnecessary nominations, special criteria may be published with the Canada Gazette I Notice. Users must review these criteria and ensure that any substance reported is consistent with these specifications.

2 **Manufacturers and importers** will be allowed the opportunity to review the Provisional DSL and to comment on omissions or inaccuracies. Reporting for inclusion on the DSL should not be delayed until this review stage, as it is not intended to serve as a third reporting phase.

2.2 When to Report

The schedule for sequenced reporting in compiling the DSL is outlined below. Should minor changes in deadlines be necessary as DSL building proceeds, Environment Canada will ensure this information is communicated to industry in an effective and efficient manner.

Phase I Reporting[4] (selected manufacturers/importers)	October 1, 1988 - March 31, 1989[5]
Core DSL Publication	August 1989
Phase II Reporting (manufacturers/importers)	April 1, 1989 - December 1, 1989[6]
Provisional DSL (Canada Gazette I)	April 1, 1990
Correction/Review Period (manufacturers/importers/users)	April 1, 1990 - June 30, 1990

2.3 The Report Forms

Two different types of Domestic Substances List Report Forms (Form A and Form B) are available. Each copy of both forms has a unique identifying Form Number located in the upper left-hand corner.

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[4] The Core DSL will not contain confidential substances. Consequently, Phase I submitters are not obliged to report substances for which the identity is to be claimed confidential. However, to facilitate information processing, submitters are strongly encouraged to report such nominations during Phase I.

[5] Submitters providing DSL reports in March 1989 are cautioned that, due to the time required for processing, substances nominated may not be included in the Core DSL. Therefore, submitters are urged to provide reports as early as possible.

[6] All nominations must be submitted to Environment Canada by December 1, 1989. Replacement Forms (see Chapter VII) may be provided up to January 31, 1990.

FORM NUMBER

Environment Canada / Environnement Canada

DOMESTIC SUBSTANCES LIST REPORT

SUBSTANCES WITH CAS REGISTRY NUMBERS WHERE SUBSTANCE IDENTITY IS NOT CONFIDENTIAL

REPORT FORM **A**

(AUSSI DISPONIBLE EN FRANCAIS

I. CERTIFICATION STATEMENT

I hereby certify that to the best of my information, knowledge and belief: (1) the substance(s) identified below was (were) between January 01, 1984 and December 31, 1986, manufactured in or imported into Canada by the person or corporation identified in Block II of this form, in a quantity of not less than 100 kg in any one calendar year, or in Canadian commerce or used for commercial manufacturing purposes in Canada; and (2) the information for which confidentiality is claimed meets the criteria for determining confidentiality as outlined on the back of this form. It is understood that section 25 of the Canadian Environmental Protection Act requires that the Minister be "satisfied" that all substances specified on the Domestic Substances List meet the requirements set out in section 25 of the Act; therefore further documentation may be requested to establish that a substance identified below meets those requirements.

NAME AND TITLE (TYPE OR PRINT)

SIGNATURE

DATE Y M D

II CORPORATE HEADQUARTERS

CORPORATION

STREET

CITY | PROVINCE | POSTAL CODE

III SITE OF MANUFACTURE (MANUFACTURER'S USE ONLY)

CORPORATION

STREET

CITY | PROVINCE | POSTAL CODE

IV. PRINCIPAL TECHNICAL CONTACT NAME | ADDRESS | TELEPHONE NO.

V. SUBSTANCE INFORMATION

LINE NO	CAS REGISTRY NUMBER (INCLUDE HYPHENS)	SPECIFIC SUBSTANCE NAME (SEPARATE ALTERNATE NAMES WITH A SEMI-COLON)	ACTIVITY: MANUFACTURE	ACTIVITY: IMPORT	ACTIVITY: IN COMMERCE	AMOUNT (1986)	USE CODE(S) (3 MAXIMUM)	CONFIDENTIALITY CLAIMS: CORPORATION	CONFIDENTIALITY CLAIMS: SITE	CONFIDENTIALITY CLAIMS: MANUFACTURE	CONFIDENTIALITY CLAIMS: IMPORT	CONFIDENTIALITY CLAIMS: IN COMMERCE	CONFIDENTIALITY CLAIMS: AMOUNT	CONFIDENTIALITY CLAIMS: USE	DESTINATION OF IMPORT (IMPORTER'S USE ONLY): BC	ALTA	SASK	MAN	ONT	QUE	NB	NS	PEI	NFLD	YUKON	NWT	LINE NO
1																											1
2																											2
3																											3
4																											4
5																											5
6																											6
7																											7
8																											8
9																											9
10																											10

DO NOT WRITE BELOW THIS LINE

ENVIRONMENT CANADA BATCH NUMBER	RECEIVED / TRANSMITTED	SIGNATURE / NAME	REPLACING FORM NO / REPLACING LINE NO	*(DO NOT REMOVE LABEL)*

84-2610 (07/88)

ENVIRONMENT CANADA COPY (1)

DSL REPORT FORM A

FORM NUMBER	Environment Canada / Environnement Canada **DOMESTIC SUBSTANCES LIST REPORT** SUBSTANCE IDENTITY CONFIDENTIAL OR NO CAS REGISTRY NUMBER	REPORT FORM **B** *(AUSSI DISPONIBLE EN FRANÇAIS)*

I CERTIFICATION STATEMENT

I hereby certify that to the best of my information, knowledge and belief: (1) the substance identified below was, between January 01, 1984 and December 31, 1986, manufactured in or imported into Canada, by the person or corporation identified in Block II of this form, in a quantity of not less than 100 kg in any one calendar year, or in Canadian commerce or used for commercial manufacturing purposes in Canada; and (2) the information for which confidentiality is claimed, meets the criteria for determining confidentiality as outlined on the back of this form. It is understood that section 25 of the Canadian Environmental Protection Act requires that the Minister be "satisfied" that all substances specified on the Domestic Substances List meet the requirements set out in section 25 of the Act, therefore further documentation may be requested to establish that a substance identified below meets these requirements.

NAME AND TITLE (TYPE OR PRINT)	SIGNATURE	DATE Y / M / D

FOREIGN SUPPLIER'S SIGNATURE

II CORPORATE HEADQUARTERS			III SITE OF MANUFACTURE *(MANUFACTURER'S USE ONLY)*		
CORPORATION			CORPORATION		
STREET			STREET		
CITY	PROVINCE	POSTAL CODE	CITY	PROVINCE	POSTAL CODE

IV PRINCIPAL TECHNICAL CONTACT NAME	ADDRESS	TELEPHONE No.

V SUBSTANCE INFORMATION

ACTIVITY			AMOUNT (1986)	USE CODE(S) (3 MAXIMUM)	CONFIDENTIALITY CLAIMS							DESTINATION OF IMPORT *(IMPORTER'S USE ONLY)*											
MANUFACTURE	IMPORT	IN COMMERCE			CORPORATION	SITE	MANUFACTURE	IMPORT	IN COMMERCE	AMOUNT	USE	BC	ALTA	SASK	MAN	ONT	QUE	NB	NS	PEI	NFLD	YUKON	NWT

☐ SUBSTANCE IDENTITY IS CONFIDENTIAL

(1) SUBSTANTIATION - ☐ NUMBER OF SHEETS ATTACHED (WRITE FORM NUMBER ON ALL SHEETS)

(2) CAS REGISTRY NUMBER _____

(3) PROPOSED MASKED NAME _____

LINE 1 — SPECIFIC SUBSTANCE NAME *(SEPARATE ALTERNATE NAMES WITH A SEMI COLON)*

IN THE SPACE BELOW, PROVIDE STRUCTURAL INFORMATION, MOLECULAR FORMULA AND OTHER SUPPLEMENTAL INFORMATION TO AID IN THE SPECIFIC IDENTIFICATION OF THIS SUBSTANCE

MOLECULAR FORMULA

☐ NUMBER OF SHEETS ATTACHED *(WRITE FORM NUMBER ON EACH SHEET)*

DO NOT WRITE BELOW THIS LINE

ENVIRONMENT CANADA BATCH NUMBER	RECEIVED / TRANSMITTED	SIGNATURE / NAME	REPLACING FORM NO / REPLACING LINE NO	*(DO NOT REMOVE LABEL)*

REPORT FORM A

Form A should be used to report substances with CAS Registry Numbers and non-confidential identities.

A CAS Registry Number and a specific substance name must be cited for each substance. As many as ten (10) different substances may be reported on each Form A.

REPORT FORM B

Form B should be used to report a substance lacking a CAS Registry Number and/or having a confidential identity.

For a substance with a well-defined, unique structural diagram and no CAS Registry Number, a specific name, molecular formula and structural diagram must be provided.

For a substance which cannot be defined by an unique structural diagram, supplemental information to aid in the specific identification of the substance must be provided. A specific name and a description of the substance (e.g., reaction scheme and starting reactants, or manufacturing stream from which the substance was obtained) must be included.

Substance identity can only be claimed confidential by using Form B.

2.4 Obtaining Report Forms

Copies of Domestic Substances List Report Forms A and B are available from Regional Conservation and Protection offices of Environment Canada or from the Domestic Substances List Project, Environment Canada, Ottawa. Phone numbers and addresses are noted in Appendix IV.

Before requesting Report Forms, the number of copies should be estimated to avoid ordering an unnecessarily large quantity. Forms are available in both French and English.

2.5 Further Assistance

For further assistance in completing the Domestic Substances List Report Forms or interpreting the instructions provided in this document, submitters and potential submitters should contact:

Domestic Substances List Project
Environment Canada
Ottawa, Ontario
K1A OH3

Toll free number: 800-567-1999
Telecopier: (819) 953-7155

Chapter III - CRITERIA FOR REPORTING

3.1 Eligibility Criteria

Each substance reported for inclusion on the Domestic Substances List must meet all of the following requirements:

1. It must be a "substance" as defined in Section 3 of the **Canadian Environmental Protection Act**.

2. It must have been manufactured in or imported into Canada in a quantity of not less than 100 kg in any one calendar year between January 1, 1984 and December 31, 1986; or been in Canadian commerce or used for commercial manufacturing purposes in Canada between January 1, 1984 and December 31, 1986.

3. It must be reported on the appropriate Domestic Substances List Report Form (A or B).

4. It must not be a substance that is: (a) manufactured or imported for a use that is regulated under an Act of Parliament, other than CEPA, that provides for notice to be given prior to the manufacture, import or sale of the substance and for an assessment of whether it is toxic; (b) a transient reaction intermediate; (c) an impurity, contaminant or partially unreacted material; or (d) produced when another substance undergoes a chemical reaction that is incidental to its use.

3.2 Substance Criteria

1. ***Substances reported pursuant to the Pest Control Products Act, the Food and Drugs Act and the Atomic Energy Control Act and which have no commercial use other than those for which they were registered should not be reported.***

   For the purpose of compiling the Domestic Substances List, substances reported pursuant to the requirements of the **Pest Control Products Act**, the **Food and Drugs Act** and the **Atomic Energy Control Act** should not be reported. This includes:

   i) substances registered or submitted for registration under the **Pest Control Products Act**;

   ii) radioactive substances that are prescribed within the meaning of the **Atomic Energy Control Act** and regulations thereunder. Radioactive substances that are not prescribed and otherwise meet reporting requirements are reportable;

   iii) substances registered as pharmaceuticals, cosmetics, foods and food additives submitted under the **Food and Drugs Act**.

Substances reported pursuant to the **Pest Control Products Act**, the **Food and Drugs Act** and the **Atomic Energy Control Act**, but having a commercial use or uses other than those specified under these three statutes, should be reported.

2. ***Substances used for research and development in quantities not exceeding 100 kg should not be reported.***

Substances manufactured or imported for research and development purposes, including analytical reagents, at quantities of less than 100 kg per year are not reportable. Such substances include analytical reagents and substances used solely for research and development.

3. ***Articles should not be reported.***

An article is defined as any manufactured item that is formed into a specific physical shape or design during manufacture and has, for its final use, a function or functions dependent in whole or in part on its shape or design. Articles which undergo chemical surface reactions to increase their stiffness, strength, flame resistance or to improve their resilience, bacterial resistance, etc. while maintaining their bulk structure, retain their status as articles.

Examples of articles include batteries, brake linings, fabrics, fibers, filaments, films, leather, paper, pencils and yarns.

Components of articles and substances used in the finishing process of an article are reportable if they have a separate commercial identity from that of the article (i.e., the component was sold separately on the Canadian market, or it was imported or manufactured in excess of 100 kg, during the eligible period)

4. ***Substances occurring in nature should not be reported.***

Substances occurring in nature as such, unprocessed or processed only by manual, mechanical or gravitational means, by dissolution in water, by flotation, or by heating solely to remove water, or which are extracted from air by any means, should not be reported individually. These substances will be covered on the DSL by the entry "naturally occurring substances." Methods which will not alter the chemical identity of substances occurring in nature include:

- filtration
- milling, cutting, pressing
- any gravitational separation (decantation/centrifugal methods)
- processing by electrostatic means
- extraction with water (not with other solvents)

Isolated substances, or those which are part of mixtures, which are produced by chemical modification of naturally occurring products or are separated from them by physical processing should be reported. Physical processing includes such methods as

- distillation
- steam distillation
- crystallization
- sublimation
- heating for reasons other than to remove water
- salting out
- ion exchange (products obtained by)

NOT REPORTABLE	REPORTABLE
1. Corn flour (milled corn)	1. Corn flour, acid modified [68525-85-9*] A substance produced by heating refined corn flour in an acid medium followed by neutralization.
2. Pine wood	2. Rosin [8050-09-7*] A complex combination derived from wood, especially pine wood.
3. Castor bean (Ricinus communis)	3. Castor oil [8001-79-4*]

5. ***Microorganisms, chemically modified microorganisms and products of microorganisms should not be reported.***

Biotechnology, as defined in CEPA, means the application of science and engineering in the direct or indirect use of living organisms or parts or products of living organisms in their natural or modified forms. Regulations addressing biotechnology and the products of biotechnology are presently being developed and these control instruments will address reporting procedures.

Microorganisms, chemically modified microorganisms and products of microorganisms, such as fungi, yeasts, viruses, bacteria, enzymes or other substances should not be reported, as they are considered biotechnological products for the DSL compilation.

6. ***Effluents, emissions, wastes and byproducts should not be reported.***

Effluents, emissions, wastes and byproducts are excluded from reporting for the DSL; however, marketing or commercial use of such substances will qualify them for reporting.

7. ***Impurities and contaminants should not be reported.***

Impurities and contaminants, including those formed inadvertently during the preparation of a substance, are not reportable. Partially unreacted starting materials are considered impurities when they are inadvertently present in the product substance and do not contribute to commercial value or performance.

8. ***Transient reaction intermediates should not be reported.***

Transient reaction intermediates are substances formed and consumed in the course of a chemical reaction; they are not isolated and are not likely to be released into the environment.

9. ***Incidental reaction products should not be reported.***

Incidental reaction products include substances produced when a substance undergoes a chemical reaction that is incidental to the use to which the substance is put or that results from storage or environmental factors.

i) Substances which result from a chemical reaction occurring upon end use of other substances, articles or mixtures (e.g. dried paints, adhesives, reaction products between antioxidants and polymers, photographic films, batteries, matches) and which have not themselves been placed on the market, and have no specific commercial value should not be reported. Any substance deliberately formed during a chemical reaction to enhance the commercial use and/or physical and chemical properties of a substance, article or mixture should be reported.

ii) Substances which result from a chemical reaction that occurs incidental to storage of another substance (e.g., drying oils) should not be reported.

iii) Substances which result from exposure of another substance to environmental factors such as air, moisture, microbial organisms or sunlight should not be reported.

10. ***Hydrates*** of a substance or hydrated ions formed by association of a substance with water are considered mixtures and ***should not be reported***.

The anhydrous form should be reported and will, by implication, represent all hydrated forms.

Metallic hydroxides, often termed metal hydrates, do not contain water of hydration and are not considered hydrates for reporting purposes. Such substances should be reported. An example of a metal hydroxide is copper hydroxide, $Cu(OH)_2$.

11. ***Homogeneous and heterogeneous alloys*** are considered mixtures and **should *not be reported***.

    Alloys that are solid or liquid mixtures of two or more metals or of one or more metals with certain nonmetallic elements (e.g., certain carbon steels), are considered mixtures and are not reportable. Intermetallic compounds of well defined stoichiometry are not considered alloys and should be reported.

12. ***Mixtures should not be reported*** if they are combinations of substances that do not produce a substance or substances that are different from the substances that were combined.

    A commercial product formed by the intentional mixing of two or more substances, which produces no new substance(s) and results in only a combination of the mixed substances, should not be reported. The components of such mixtures however, should be reported.

NOT REPORTABLE	REPORTABLE
1. Coating material of linseed oil and titanium dioxide	1. linseed oil [8001-26-1*] titanium dioxide [13463-67-7]
2. Solution of hexane and methanol	2. hexane [110-54-3] methanol [67-56-1]
3. Fertilizer	3. urea [57-13-6] phosphoric acid [7664-38-2]
4. Cobalt oxide aluminum oxide catalyst	4. Cobalt II oxide [1307-96-6] Cobalt III oxide [1308-04-9] Aluminum oxide [1344-28-1]

13. ***Complex reaction mixtures*** obtained as the result of a chemical reaction and utilized in Canadian commerce without separation into component parts are considered substances for CEPA and ***should be reported***, if they cannot practicably be formed by simply combining individual constituents.

    If the reaction mixture contains numerous reaction products, only some of which can be uniquely identified, the mixture is considered a substance and should be reported in terms of the reactants and reaction processes. (A number of complex reaction mixtures, described in terms of reactants and reaction process are included on the 1985 TSCA Inventory and, consequently, have an assigned CAS Registry Number.)

    Such complex reaction mixtures may be reported in terms of component substances, only if a significant fraction of the mixture can be characterized in terms of reportable substances including **all** those contributing to the commercial value of the mixture.

14. ***Substances represented by the special categories listed below should be reported*** using these category names and CAS Registry Numbers.

These categories cover all the component substances intentionally produced in certain common commercial reaction mixtures. Special categories have been established, and are included on the DSL, to reduce the reporting burden for industry. They follow the example set by the United States and Europe. These categories of substances are:

1.	Glass, oxide, chemicals	[65997-17-3*]
2.	Frits, chemicals	[65997-18-4*]
3.	Ceramic materials and wares, chemicals	[66402-68-4*]
4.	Steel manufacture, chemicals	[65997-19-5*]
5.	Cement, alumina, chemicals	[65997-16-2*]
6.	Cement, portland, chemicals	[65997-15-1*]

Definitions for these categories can be found in Appendix II.

15. ***Polymers, polyadducts, polycondensates and post treated polymers should be reported.***

For purposes of CEPA, polymeric substances are substances which have a molecular weight distribution and consist of at least a simple weight majority of polymer molecules.

Polymeric substances are reportable in terms of their starting reactants. A reactant is defined as a chemical substance that is used intentionally in the manufacture of a polymer, to become chemically part of the polymer composition. Initiators, catalysts and other substances which do not become part of the polymer composition must be reported separately. Section 5.3 should be consulted for instructions on how to report polymeric substances.

Substances which have a unique well-defined chemical structure and no molecular weight distribution are not considered polymers, irrespective of their chain length. Section 5.2 should be consulted for instructions on how to report these well-defined substances.

Natural polymers occurring in nature as such, should not be reported. These substances will automatically be included on the DSL under the entry "naturally occurring substances." Post-reacted natural polymers or those natural polymers treated chemically or physically by means other than manual, mechanical or gravitational should be reported (Criterion 4).

Since it is recognized that minor modifications to the mixture of reactants do not significantly change the polymeric substance to be reported, polymers can be reported in terms of 98% of their initial reactants. That is, up to a sum total of 2% of the reactants may be left out of the description of a reported polymer. The intent of this rule is to reduce the reporting burden of industry.

3.3 Verification of Eligibility

Under subsection 25(1) of **CEPA**, the Minister of Environment **must be satisfied** that a substance placed on the Domestic Substances List was, between January 1, 1984 and December 31, 1986, (a) manufactured in or imported into Canada in a quantity of not less than 100 kg in any one calendar year; or (b) in Canadian commerce or used for commercial manufacturing purposes in Canada.

Information provided on the DSL Report Forms will be particularly important in determining whether nominated substances satisfy the statutory criteria.

Substances nominated for the DSL will be included on the list provided;

(1) the Chief Executive Officer has attested to the accuracy of the information by signing the Certification Statement;

(2) all necessary information has been provided and properly entered on the form; and

(3) any claim of confidentiality for substance identity has been accepted by Environment Canada.

While respondents will not be required to provide documentation substantiating nomination at the time of reporting, they may be requested to make such information available at a later date for audit purposes.

Environment Canada intends to implement an audit program to evaluate the legitimacy of selected DSL entries. Therefore, it is recommended that information used as the basis for DSL reporting be readily accessible. Auditing will continue beyond the date of publication of the Final DSL; consequently records should be maintained until Environment Canada announces a conclusion to the program. The selection of substances for this program will be based on a number of considerations such as:

(1) quantity information indicating manufacture, import or use of less than 100 kg in 1986,

(2) absence from the 1985 TSCA Inventory, etc.

Nominators of the substances selected for audit will be required to provide proof of eligibility of the substances. This will most often consist of records of sale, purchase, production/manufacture and import (e.g. Customs Canada B3 forms or contracts with import brokers). Where evidence is not provided or deemed inadequate, a substance may be deleted from the DSL.

Chapter IV - HOW TO REPORT

4.1 Tips on Filling Out Report Forms

- Carefully read Chapter III, **Criteria for Reporting**, and the rest of this instruction booklet, including the appendices, before attempting to fill out the forms.

- Be sure to use the appropriate Domestic Substances List Report Form.

- Type or print legibly using a black ball point pen. Press firmly to ensure that the carbon copies are legible.

- In instances where information is to be provided by an indication in the appropriate box, an **"X"** should be used.

- If you make a mistake on a line, cross out the entire entry and start over on the next line.

- Be sure that the Chief Executive Officer signs the **Certification Statement** on each form.

- Use only **official** Environment Canada Domestic Substances List Report Forms. Chemical substances reported in letter form or on unofficial duplicates of the official report forms will not be processed. (Submissions by foreign suppliers which require the photocopying of Form B to accommodate information on mixtures will be the only exception.) Substances may be reported on computer tape. Individuals or companies wishing to provide information in this manner should contact Environment Canada (refer to Appendix IV) for specific instructions. Permission to report on tape will be granted on a case by case basis following an evaluation to ensure the requesting party's capabilities to report on tape are compatible with the requirements of Environment Canada's processing systems.

- Review the Report Form to ensure that all required information has been provided.

- Detach and retain the bottom (fourth) copy of each form, marked **Submitting Company Copy**, for your records.

- Mail the remaining copies of each form and the attached postcard to:

  Domestic Substances List Project
  Environment Canada
  Ottawa, Ontario
  K1A OH3

- Environment Canada will acknowledge receipt of each form by returning the attached postcard to the attention of the individual identified as the **Principal Technical Contact** at the address identified in BLOCK II.

FORM NUMBER

21.561234.06

Environment Canada / Environnement Canada

DOMESTIC SUBSTANCES LIST REPORT

SUBSTANCES WITH CAS REGISTRY NUMBERS WHERE SUBSTANCE IDENTITY IS NOT CONFIDENTIAL

REPORT FORM **A**

(AUTO) DISPONIBLE EN FRANÇAIS

I. CERTIFICATION STATEMENT

I hereby certify that to the best of my information, knowledge and belief: (1) the substance(s) identified below was (were) between January 01 1984 and December 31 1986 manufactured in or imported into Canada by the person or corporation identified in Block II of this form in a quantity of not less than 100 kg in any one calendar year or in Canadian commerce or used for commercial manufacturing purposes in Canada; and (2) the information for which confidentiality is claimed meets the criteria for determining confidentiality as outlined on the back of this form. It is understood that section 25 of the Canadian Environmental Protection Act requires that the Minister be "satisfied" that all substances specified on the Domestic Substances List meet the requirements set out in section 25 of the Act; therefore further documentation may be requested to establish that a substance identified below meets those requirements.

NAME AND TITLE (TYPE OR PRINT): John A. Smith, President

SIGNATURE: John A Smith

DATE: 08 | 12 | 10

II. CORPORATE HEADQUARTERS

CORPORATION: AGD Chemicals, Incorporated

STREET: 5770 Maple Leaf Road 15th Floor, Rockville Building

CITY: Toronto | PROVINCE: Ontario | POSTAL CODE: E3N 1R7

III. SITE OF MANUFACTURE (MANUFACTURE USE ONLY)

CORPORATION: AGD Speciality Products

STREET: 432 East River Road

CITY: Alton | PROVINCE: Manitoba | POSTAL CODE: M4D 6V4

IV. PRINCIPAL TECHNICAL CONTACT NAME: Mark Spencer, Ph.D.

ADDRESS: 5770 Maple Leaf Road Toronto, Ontario E3N 1R7

TELEPHONE NO: (416) 634-8792

V. SUBSTANCE INFORMATION

LINE No.	CAS REGISTRY NUMBER (INCLUDE HYPHENS)	SPECIFIC SUBSTANCE NAME (SEPARATE ALTERNATE NAMES WITH A SEMI-COLON)	ACTIVITY: MANUFACTURE	IMPORT	IN COMMERCE	AMOUNT (1986)	USE CODE(S) (3 MAXIMUM)	LIMIT OF CONFIDENTIALITY CLAIMED: CORPORATION	SITE	MANUFACTURE	IMPORT	IN COMMERCE	AMOUNT	USE	DESIGNATION OF REPORT PREPARED (USE ONLY): BC	ALTA	SASK	MAN	ONT	QUE	NB	NS	PEI	NFLD	YUKON	NWT	LINE No.
1	21364-42-1	2-(Methylthio)-5-Methylthiazole	X			D 1 0 7 7								X												1
2	19158-51-1	Benzenesulfonyl Cyanide, 4-Methyl;		X		C 5 8 3 5 4										X				X				X			2
3	----------	p-Tolysulfonyl Cyanide; p-Toluenesulfonyl																									3
4	----------	cyanide																									4
5	50805-86-6	2-Chloro-N-[3(o-Chlorobenzoly)																									5
6	50508-86-6	2-Chloro-N-[4-(o-Chlorobenzoyl)-5-Methyl	X			E 0 5 6 6				X																	6
7	----------	2-Thienyl]Acetamide																									7
8																											8
9																											9
10																											10

DO NOT WRITE BELOW THIS LINE

ENVIRONMENT CANADA BATCH NUMBER	RECEIVED / TRANSMITTED	SIGNATURE / NAME	REPLACING FORM NO. / REPLACING LINE NO.	(DO NOT REMOVE LABEL)

ENVIRONMENT CANADA COPY (1)

COMPLETED DSL REPORT FORM A

FORM NUMBER	Environment Canada / Environnement Canada	REPORT FORM
32.145631.11	**DOMESTIC SUBSTANCES LIST REPORT** SUBSTANCE IDENTITY CONFIDENTIAL OR NO CAS REGISTRY NUMBER	**B** (AVIS DISPONIBLE EN FRANÇAIS)

I CERTIFICATION STATEMENT

I hereby certify that to the best of my information, knowledge and belief (1) the substance identified below was between January 01 1984 and December 31 1986 manufactured in or imported into Canada by the person or corporation identified in Block II of this form in a quantity of not less than 100 kg in any one calendar year or as a Canadian component or used for commercial manufacturing purposes in Canada and (2) the information for which confidentiality is claimed meets the criteria for determining confidentiality as outlined on the back of this form. It is understood that section 25 of the Canadian Environmental Protection Act requires that the Minister be "satisfied" that all substances specified on the Domestic Substances List meet the requirements set out in section 25 of the Act therefore further documentation may be requested to establish that a substance identified below meets those requirements.

NAME AND TITLE (TYPE OR PRINT)	SIGNATURE	DATE
John A. Smith, President	John A. Smith	Y 88 M 12 D 10
FOREIGN SUPPLIER'S SIGNATURE		

II CORPORATE HEADQUARTERS

CORPORATION	A&D Chemicals, Incorporated
	15th Floor, Rockville Building
STREET	5770 Maple Leaf Road
CITY	Toronto
PROVINCE	Ontario
POSTAL CODE	E3N 1R7

III SITE OF MANUFACTURE (MANUFACTURER'S USE ONLY)

CORPORATION	A&D Speciality Products
STREET	432 East River Road
CITY	Alton
PROVINCE	Manitoba
POSTAL CODE	M4D 6V6

IV PRINCIPAL TECHNICAL CONTACT

NAME	ADDRESS	TELEPHONE NO
Mark Spencer, Ph.D.	5770 Maple Leaf Road Toronto, Ontario E3N 1R7	(416) 634-8792

V SUBSTANCE INFORMATION

ACTIVITY: MANUFACTURE	ACTIVITY: IMPORT	ACTIVITY: IN COMMERCE	AMOUNT (kg)	USE CODE(S) (3 MAXIMUM)
X			D	2 8 6

CONFIDENTIALITY CLAIMS: CORPORATION	BITE	MANUFACTURE	IMPORT	IN COMMERCE	AMOUNT	USE
	X					

DESTINATION OF IMPORT (IMPORTER'S USE ONLY)											
B.C.	ALTA.	SASK.	MAN.	ONT.	QUE.	N.B.	N.S.	P.E.I.	NFLD.	YUKON	N.W.T.

☐ SUBSTANCE IDENTITY IS CONFIDENTIAL

(1) SUBSTANTIATION - ☐ NUMBER OF SHEETS ATTACHED (WRITE FORM NUMBER ON ALL SHEETS)

(2) CAS REGISTRY NUMBER _____

(3) PROPOSED MASKED NAME _____

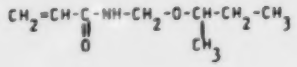
LINE 1 — SPECIFIC SUBSTANCE NAME (SEPARATE ALTERNATE NAMES WITH A SEMI-COLON): N-(s-Butoxymethyl)acrylamide

IN THE SPACE BELOW PROVIDE STRUCTURAL INFORMATION, MOLECULAR FORMULA AND OTHER SUPPLEMENTAL INFORMATION TO AID IN THE SPECIFIC IDENTIFICATION OF THIS SUBSTANCE

$C_8H_{15}NO_2$

MOLECULAR FORMULA

☐ NUMBER OF SHEETS ATTACHED (WRITE FORM NUMBER ON EACH SHEET)



$$CH_2=CH-\overset{\overset{O}{\|}}{C}-NH-CH_2-O-\underset{\underset{CH_3}{|}}{CH}-CH_2-CH_3$$

DO NOT WRITE BELOW THIS LINE

ENVIRONMENT CANADA BATCH NUMBER	RECEIVED / TRANSMITTED	SIGNATURE / NAME	REPLACING FORM NO / REPLACING LINE NO	(DO NOT REMOVE LABEL)

(84 7819 (07 88)

ENVIRONMENT CANADA COPY (1)

4.2 How to Complete The Domestic Substances List Report Forms

4.2.1 Certification Statement and Signature

The **Certification Statement** is an affirmation by the submitter of the Domestic Substances List Report Form that the substances nominated are consistent with the requirements of section 25 of CEPA; namely that the substance was, for the period between January 1, 1984 and December 31, 1986, manufactured in or imported into Canada in a quantity of not less than 100 kg in any calendar year or, used in Canadian commerce or used for commercial manufacturing purposes in Canada. By signing the **Certification Statement**, the submitter also attests to the fact that the information for which confidentiality has been claimed is consistent with the criteria on the back of the form.

The Chief Executive Officer (CEO) must sign the **Certification Statement** on behalf of the reporting company. The CEO's name and title should be typed or printed on the **Name and Title** line of BLOCK I. The CEO should sign on the **Signature** line and the year, month and day of signature should be entered under **Date**.

In instances where a single submission from a company exceeds five report forms, the CEO may forego the signing of each form and provide a signed and dated letter which includes the following statement and a list of the DSL Report Form Numbers which are included:

"Certification Statement"

I hereby certify that to the best of my information, knowledge and belief;

(1) the substances identified on the Domestic Substances List Report Forms identified below were, between January 01, 1984, and December 31, 1986, manufactured in or imported into Canada by the person or corporation identified in BLOCK II of these forms, in a quantity of not less that 100 kg in any one calendar year, or in Canadian commerce or used for commercial manufacturing purposes in Canada; and

(2) the information for which confidentiality is claimed, meets the criteria for determining confidentiality as outlined on the back of the report forms. It is understood that section 25 of the Canadian Environmental Protection Act requires that the Minister be "satisfied" that all substances on the Domestic Substances List meet the requirements set out in section 25 of the Act; therefore further documentation may be requested to establish that a substance identified on the forms meets those requirements.

This Certification Statement applies to the following Domestic Substances List Report Forms:

(List All Form Numbers Here)

1.	4.
2.	5.
3.	6.

CEO Name and Title **CEO Signature** **Date (year/month/day)**

This letter and all DSL Report Forms covered by the **Certification Statement** should be forwarded to Environment Canada as a single package. Environment Canada will not be responsible for matching DSL Report Forms with letters of certification sent separately.

4.2.2 Corporate Headquarters

Corporate Headquarters (BLOCK II) is the Canadian corporate headquarters of a business entity nominating a substance on behalf of itself, a division or a subsidiary. The name of the corporation, as well as the full address of the main office, must be included. An address outside Canada should not be entered. If an individual nominating a substance is not incorporated, the headquarter's name of the business should be entered.

4.2.3 Site of Manufacture

Single site of manufacture

Where a substance is being nominated on the basis of domestic manufacture, the name of the corporation, division or subsidiary responsible for its production and the exact address of the plant site must be supplied in BLOCK III.

Multiple sites of manufacture

Where a substance is being nominated on the basis of domestic manufacture and was manufactured by the same corporate entity at more than one site, the submitter has two options.

(1) A separate DSL Report Form may be completed for each site of manufacture with the name of the corporation, division or subsidiary responsible for its production and the exact address of the plant site noted in BLOCK III.

(2) Plant sites at which the substance is manufactured may be noted on an attachment to the report form. In this case "Refer to Attachment - Multiple Sites of Manufacture" should be noted under **Site of Manufacture** (BLOCK III). The attachment should note the form number (noted in the upper left hand corner of the form), line number, the name of the corporation, division or subsidiary responsible for the production of the substance and the exact address of each plant site. Information should be provided in the following manner:

Form Number/Line Number (means of substance identification)

Sites of Manufacture:

1. Corporation, Division, Subsidiary Name
   Street
   City, Province, Postal Code

2. Corporation, Division, Subsidiary Name
   Street
   City, Province, Postal Code

3. Corporation, Division, Subsidiary Name
   Street
   City, Province, Postal Code

4.2.4 Principal Technical Contact

The name, address and telephone number of the person whom Environment Canada may contact for clarification of information submitted on the Report Form must be provided in BLOCK IV. It is important to note that problem letters (Chapter VII) and the DSL Report Form acknowledgement card will be forwarded to the attention of the **Principal Technical Contact** at the address identified in BLOCK II, not the address entered in BLOCK IV. The BLOCK IV address on correspondence from Environment Canada will appear as descriptive information on the **Principal Technical Contact** to facilitate internal routing within the company.

The DSL Report Form acknowledgement card may be directed to an address other than **Corporate Headquarters** by manually affixing an address label (with a typed name and mailing address) to the card. This label should be attached after the DSL Report Form has been completed and should be placed over the Corporate Headquarter's address which will have been copied onto the card. Under no circumstances, however, should the acknowledgement card be detached from the DSL Report Form.

4.2.5 Activity

In order to be nominated to the DSL, a substance must be manufactured in Canada, imported into Canada or in Canadian commerce. The particular activity upon which nomination is based must be indicated by checking the appropriate box under **Activity**. Only one activity per line can be checked on Report Form A. If a company both manufactured and imported a substance and Report Form A is used, the substance must be entered on two separate lines of Form A; once for import and once for manufacture. For substances reported on Form B, two separate forms must be completed.

It should be noted that for purposes of identifying an **Activity**, **In Commerce** does not include import or manufacture. **In Commerce** is primarily intended for Users having a need to nominate substances. Such substances would have been on the Canadian market during the statutory reporting period but neither manufactured nor imported during that time. Users will be given the opportunity to report during the Correction/Review period.

4.2.6 Amount

Amount refers to the quantity of a substance manufactured, imported or in Canadian commerce during the calendar year 1986. This information should be provided for each nominated substance using the following amount codes:

CODE	QUANTITY RANGE (kg)
A	under 100
B	100 - 1,000
C	1,000 - 10,000
D	10,000 - 100,000
E	100,000 - 1,000,000
F	1,000,000 - 10,000,000
G	over 10,000,000
N	Nil - (Substance did not meet eligibility criteria in 1986, but did meet eligibility criteria in 1984 or 1985)

The amount code "N" is to be used for those substances which met reporting criteria during 1984 or 1985 but not in 1986. "N" should be entered for **Amount** if there was no import, manufacture or in commerce activity in 1986 (i.e. substance quantity was zero) and nomination is based on 1984 or 1985 amounts. "N" should also be used in instances where the import or manufacture **Amount** in 1984 or 1985 exceeded 100 kg, but was less that 100 kg in 1986. It is important to note that "A" denotes a real quantity of less than 100 kg; **it can not be used to represent 0 kg**.

Multiple Sites of Manufacture: For manufacturers with more than one site of manufacture for the nominated substance and choosing to report on a single Report Form, (particular sites being noted on an attachment), the entry under **Amount** will be the total for all locations.

Multiple Sites of Importation: For importers indicating more than one destination of import for the nominated substance and choosing to report on a single Report Form, the entry under **Amount** will be the total for all locations.

Mixture: For submitters reporting component substances of a mixture (see Criteria 12 & 13, Chapter 3.2), the **Amount** to be reported may be approximated by using the percent of the component substance in the total volume of the mixture.

4.2.7 Use Codes

Use Codes are two digit codes which denote uses of reported substances. The **Use Codes** are listed in Table 1 and are segregated into Special Use, Functional Use and Industrial Sector categories. For substances to which neither of the two special use codes apply, submitters are encouraged to select at least one code from each of the other two categories. A minimum of one use code must be supplied, or the substance will not be accepted for inclusion on the DSL.

TABLE 1-USE CODES FOR DSL REPORT FORMS

SPECIAL USE

Codes	Special Use	
00	Research and Development	(not to be used if **Amount** is less than 100 kg)
01	Site limited substance	(a site limited substance is manufactured within a particular plant site and not distributed, either unaltered or in any mixture or article, for commercial purposes outside that site)

FUNCTIONAL USE

Codes	Functional Use
02	Absorbent/adsorbent
03	Abrasive
04	Adhesive/binder/sealant/filler
05	Analytical reagent
06	Antifreeze/coolant/deicer
07	Antioxidant/corrosion inhibitor/ tarnish inhibitor/scavenger/ antiscaling agent
08	Catalyst/accelerator/initiator/ activator
09	Catalyst support/chromotography support
10	Chemical intermediate - organic
11	Chemical intermediate - inorganic, organometallic
12	Coagulant/coalescent
13	Colourant - pigment/stain/dye/ink
14	Defoamer/emulsion breaker
15	Drilling mud additive/oil recovery agent/oil well treating agent
16	Fertilizer
17	Finishing agent
18	Flame retardant/fire extinguishing agent
19	Flocculating/precipitating/ clarifying agent
20	Flotation agent
21	Formulation Component
22	Fragrance/perfume/deodourizer/ flavouring agent
23	Fuel/fuel additive
24	Functional fluid i.e. hydraulic, dielectric, or their additives
25	Humectant/dewatering aid/ dehumidifier/dehydrating agent
26	Ion exchange agent
27	Lubricating agent/lubricant additive/mould release agent
28	Monomer
29	Oxidizing agent
30	Paint/coating additive
31	Pesticide/herbicide/biocide/ disinfectant/repellant/attractant
32	Photosensitive agent-fluorescent agent/ brightener/UV absorber
33	Plasticizer
34	Polymer additive
35	Polymer, component of an article
36	Polymer, component of a formulation
37	Polymer, crosslinking agent
38	Propellant/blowing agent
39	Preservative
40	Processing aid
41	Reducing agent
42	Refrigerant
43	Sequestering agent
44	Solvent/carrier
45	Stripper/etcher/discharge printing agent/de-inker
46	Surfactant - detergent/emulsifier/ wetting agent/dispersant
47	Tarnish remover/rust remover/ descaling agent
48	Viscosity adjuster
49	Water repellant/ drainage aid
50	Water or waste treatment chemical
51	Function other than that listed in codes 02 to 50

TABLE 1-USE CODES FOR DSL REPORT FORMS

INDUSTRIAL SECTOR

Codes	Industry Sector	Codes	Industry Sector
52	Adhesive and Sealant Production	75	Non-Metallic Mineral Products, other
53	Agriculture, Field Crops	76	Organic Chemicals, Industrial
54	Agriculture, Other	77	Organic Chemicals, Speciality
55	Article Manufacture	78	Organometallic Chemicals
56	Automotive, Aircraft and Watercraft	79	Packaging
57	Biotechnology	80	Paint and Coating
58	Chlor-alkali	81	Pest Control Products, Formulating and Manufacture
59	Construction Materials	82	Petroleum and Natural Gas
60	Cosmetics	83	Pharmaceuticals
61	Electrical or Electronic Products	84	Photographic/Photocopier
62	Explosive Materials	85	Pigment, Dye and Printing Ink
63	Fertilizer	86	Plastics
64	Forestry/Wood Products/Wood Treatment	87	Plastic and Synthetic Resin
65	Food, Feed, and Beverage	88	Plating and Surface Finishing
66	Health and Veterinary	89	Printing and Publishing
67	Industrial Gas Production	90	Pulp and Paper
68	Inorganic Chemicals	91	Refined Petroleum and Coal Products
69	Magnetic Tape Manufacture	92	Rubber Products
70	Leather/Tanning	93	Soap and Cleaning Products
71	Metallurgical	94	Textile, Primary Manufacture
72	Mining, Metal and Non-Metal	95	Textile, Product
73	Non-Metallic Mineral Products, abrasive	96	Transportation
74	Non-Metallic Mineral Products, ceramic and glass	97	Water and Waste Treatment
		98	Used in an industry other than those specified in codes 51-97

4.2.8 Confidentiality Claims

Before claiming confidentiality for any information, submitters should read the **Confidentiality Statements** and **Criteria for Confidentiality** on the back of the Report Forms and refer to Chapter VI of this document. It is important to note that an **"X"** under one of the **Confidentiality Claims** boxes refers only to the information reported on that line, not the entire form.

Corporation. Marking the box under Corporation a submitter certifies that the link of the substance, named on the same line of the report form, to the corporation identified in BLOCK II is confidential.

Site. Marking the box under Site, a submitter certifies that the link of the substance, named on the same line of the report form, to the site of manufacture identified in BLOCK III, or at any site(s) indicated on any attachment provided with the form is confidential.

Manufacture. Marking the box under Manufacture, a submitter certifies that the fact that the corporation identified in BLOCK II manufactures the substance, named on the same line of the report form, at the site identified in BLOCK III, or at any site indicated on any attachment provided with the form, is confidential.

Import. Marking the box under Import, a submitter certifies that the corporation identified in BLOCK II imports the substance named on the same line of the report form is confidential.

In Commerce. Marking the box under In Commerce, a submitter certifies that the fact that the corporation identified in BLOCK II uses the substance named on the same line of the report form in commerce is confidential.

Amount. Marking the box under Amount, a submitter certifies that, for the substance named on the same line of the report form, the amount of this substance, as indicated by the amount code entered in BLOCK V, that is imported, manufactured or used in commerce by the corporation identified in BLOCK II is confidential.

Use. Marking the box under Use, a submitter certifies that the fact that the corporation identified in BLOCK II uses the substance named on the same line of the report form for the purposes indicated by the use codes entered in BLOCK V is confidential.

Chemical Substance Identity (Form B only). By placing an "X" in the box beside **Chemical Substance Identity is Confidential**, a submitter certifies that the identity of the substance reported in BLOCK V is confidential. (Refer to Chapter VI for additional information which must be provided to Environment Canada if chemical substance identity is to be claimed confidential.)

In order to ensure the protection of information claimed confidential, companies are requested to observe the following procedures:

1) DSL Report Forms containing information claimed as confidential should be sent in double envelopes, the inner one addressed and marked "CONFIDENTIAL BUSINESS INFORMATION", the outer one addressed as indicated in Section 4.1 of this document.

2) Submitters are also advised for their protection to send such letters by registered mail or other special delivery services to ensure safe arrival.

4.2.9 Destination of Import

Destination of Import refers to the province(s) of Canada in which the submitter received the imported goods and will be consistent with the information found on the Canada Customs Invoice, required for the release of imported goods under the **Accounting for Imported Goods and Payment of Duties Regulations of the Customs Act**.

4.2.10 CAS Registry Number

The **CAS Registry Number**, which may have up to ten digits, is divided into 3 parts separated by hyphens; the first part, starting from the left has up to six digits, the second part has two digits and the final part consists of a single check digit, used to verify by computer the validity of the total number. It is a unique identifying number assigned by CAS to each chemical substance included in the computer-based CAS Chemical Registry System. CAS Registry Numbers have no chemical significance in themselves and are assigned in sequential order as new substances are entered into the CAS Chemical Registry System. Each CAS Registry Number designates only one chemical substance in terms of atoms, valence bonds, and stereochemistry, insofar as that substance has been elucidated and defined. An asterisk after the CAS Registry Number indicates that it is not currently used in CAS abstract or index publications.

Care must be taken to ensure that the correct CAS Registry Number has been identified for the substance and has been entered correctly, including the hyphens, on the Report Forms.

4.2.11 Specific Substance Name

The specific substance name should identify the substance as uniquely as possible. It should include such information as position of chemical attachments, degree of unsaturation, salt forms and ratios and stereochemistry. Any inconsistency between the structure associated with the reported CAS Registry Number and name will prevent the substance from being added to the DSL.

Ambiguous or incomplete names are not appropriate for substance identification. Abbreviations, acronyms, laboratory designations, trade names, and trademarks should not be submitted. Commercial grades or degree of purity should not be cited. The specific substance name should be entered on the form in the space provided. In addition to the specific name, Environment Canada encourages the reporting of up to two other synonyms for each substance.

Synonyms should be separated from the specific name and from one another with semicolons. If the space provided for writing the chemical name(s) on Form A is insufficient, additional lines on the form may be used. A line should be drawn through the Line Number and the space provided for the CAS Registry Number when additional lines are used. This will indicate that the names on the additional lines are associated with the previous CAS Registry Number.

4.2.12 Molecular Formula (Form B Only)

A linear notation which identifies the kind and number of atoms in a molecule of a compound. For example, C_6H_6 is the molecular formula for benzene. The element symbols are arranged according to the Hill System. Carbon (C) is cited first followed by hydrogen (H), if present, then the remaining symbols are ordered alphabetically. The order of the symbols is strictly alphabetical if a compound does not contain carbon.

A molecular formula should be calculated for substances which can be described in terms of a structural diagram; this formula should be entered on the appropriate line of Form B.

4.2.13 Structural Information (Form B Only)

In the space provided in BLOCK V of Form B, a structural diagram (for substances with a well-defined unique structure) or a partial structure/reaction scheme (for substances without a well-defined structure) should be drawn. The diagram should clearly indicate the identity of the atoms and nature of the bonds joining them. In the case of a reaction scheme, the chemical identity of the immediate precursors, the nature of the reaction, and the reactants should be provided. For further information on representing substances, see Chapter V.

4.2.14 Substance Identity is Confidential (Form B Only)

Submitters claiming substance identity confidential must place an **"X"** in the box to the left of **Substance Identity is Confidential**.

Substantiation. Section 6.3 describes the type of information which must be provided to substantiate a claim of confidentiality for substance identity. The substantiation should be provided on an attachment to the form with the Report Form Number noted in the upper right-hand corner of each sheet of the attachment. The number of sheets used is entered in the block to the left of Number of Sheets Attached.

CAS Registry Number. Refer to Section 4.2.10. This is only provided on Report Form B when the substance identity is confidential. (If a CAS Registry Number is assigned and the identity is not confidential, the substance should have been reported on Form A.)

Proposed Masked Name. Submitters claiming substance identity confidential must provide an appropriate masked name. Appendix III provides guidelines for developing masked names.

4.2.15 Foreign Supplier (Form B Only)

Canadian companies wishing to nominate an imported substance or commercial mixture, for which the component substance(s) is/are unknown, must obtain the identity of the substance or substances from the foreign supplier before proceeding with the nomination. In the event that a foreign supplier considers this substance or commercial mixture to be proprietary and is unwilling to divulge its identity to the importer, the foreign supplier can submit the identity information directly to Environment Canada on the importer's behalf using the following procedure:

Importer

1) A Canadian company, requesting a foreign supplier to submit substance identity information directly to Environment Canada, must initiate a report on Form B.

2) The top copy must be separated from the remainder of Form B before entering any data. All data in Blocks I, II and IV and the boxes **Activity**, **Amount**, **Use Codes**, **Confidentiality Claims** and **Destination of Import** in Block V of this detached copy should be completed by the Canadian importer. The name and address of the foreign supplier should be entered in Block III, **Site of Manufacture**.

3) **The importer should enter, under Specific Substance Name in Block V of the detached sheet, the name of the imported product for which a foreign supplier is being requested to supply substance identity information to Environment Canada.**

4) The importer must retain a photocopy of this detached sheet for his records and forward the original to Environment Canada. A letter of acknowledgment will be provided to the Canadian importer by Environment Canada upon receipt of this information.

5) On the remaining portion of the form, the Canadian importer must enter the name of the product (for which the foreign supplier is to supply substance identity information) in the Name and Title space of BLOCK I (usually used for the name and title of the CEO of a Canadian company). The Canadian importer must then send this form to the foreign supplier for completion of the substance identity portion. It is the Canadian importer's responsibility to advise the foreign supplier of (1) the particular product for which substance information is required, (2) the types of information required, (3) the appropriate directions for completing the form and (4) a mailing address for Environment Canada. (A copy of this booklet may be the most effective means of ensuring proper data entry and transmittal.)

Foreign Supplier

1) The foreign supplier must complete Blocks II and IV, providing a company name and address, and the name of a technical contact at the company.

2) In the case where only one substance is being nominated, the foreign supplier must enter, in Block V, the **Specific Substance Name** and **CAS Registry Number**, if assigned. The foreign supplier is not to enter information for the **Activity**, **Amount**, **Use Codes**, **Confidentiality Claims** or **Destination of Import** boxes in Block V.

3) If a mixture is being reported, the supplier must make sufficient photocopies of the top copy of the form provided by the Canadian importer to allow a separate report for each component substance. (Please ensure that the Form Number is accurately reproduced during the photocopying procedure since illegible Form Numbers will void the nomination). Each component of a mixture is to be entered in the space provided for **Specific Substance Name** using a specific substance identity with percent composition noted in brackets. Appropriate CAS Registry Numbers, for all component substances if assigned, must be provided. Confidentiality claims for the substance identity of any of the components are made following the procedure described for manufacturers and importers (Section 4.2.8).

4) If copies are necessary to report the component substances of a mixture, then the number should be noted in the Number of **Sheets Attached** space on the original form.

5) After completing the forms, the Chief Executive Officer of the foreign supplier should review the **Certification Statement by Foreign Supplier** found on the back of the Form B and sign in the **Foreign Supplier Signature** space in Block I.

6) The foreign supplier should detach and retain the **Submitting Company Copy** of the original form. In addition, a photocopy of each attachment should be retained for the company's records.

7) The original form and the original version of all attachments should be forwarded to Environment Canada.

The acknowledgement card attached to the Report Form will be returned to the foreign supplier upon receipt of the information. An acknowledgement letter will be sent to the Canadian importer advising that the data required to complete the report has been received.

A Canadian importer may provide several forms to a foreign supplier in instances where information for more than one product is required. In such cases, the foreign supplier must take care to enter data for a particular product on the same form used by the Canadian importer (i.e. Form Number and product must be consistent for both reporters).

It should be noted that if the foreign supplier information necessary to complete the substance information is not received by Environment Canada within 60 days, the partially completed form submitted by the Canadian importer will be returned and the nomination process of that particular substance terminated. The use of this reporting system should be limited to only cases where the foreign supplier considers the substance proprietary. *The most effective means an importer can use to ensure that a substance is included on the DSL is to assume responsibility for obtaining the prerequisite information from the foreign supplier and submitting it to Environment Canada.*

4.3 Phase II Submissions for Substances on the Core DSL

In Phase II, manufacturers and importers are to report (a) substances not included on the Core DSL, but manufactured or imported during the three year reporting period and (b) substances on the Core DSL and manufactured or imported in excess of 1000 kg during the 1986 calendar year.

Reports on substances on the Core DSL and manufactured or imported in excess of 1000 kg in 1986 should be prepared following the instructions provided in Sections 4.1 and 4.2. In addition the following should be noted.

i) Such substances should always be submitted on DSL Report Form A.

ii) Such substances should not be submitted on a DSL Report Form(s) used to nominate substances not on the Core DSL.

iii) "On Core DSL" should be typed or printed on Line 1, under **Specific Substance Name**, of a Form A used for submissions of such substances. (No other data should be entered on Line 1.)

iv) In packaging DSL Report Forms for forwarding to Environment Canada, DSL Report Form(s) A used to submit data on such substances should be carefully and clearly segregated from other forms nominating substances not on the Core DSL.

Chapter V - GUIDELINES TO SUBSTANCE REPORTING

5.1 Locating CAS Registry Numbers

A submitter, nominating substances for the DSL using Report Form A, must identify the CAS Registry Numbers for these substances. If assigned, CAS Registry Numbers should be identified for confidential substances and included on Report Form B.

To assist the submitter in his/her efforts to locate CAS Registry Numbers, sources which may be used to identify these CAS Registry Numbers are described below.

Toxic Substances Control Act (TSCA) Chemical Substance Inventory

The TSCA Inventory of 1985 published by the U.S. Environmental Protection Agency is an Inventory of over 58,000 chemical substances manufactured, imported or processed in the United States of America. The Inventory consists of five volumes which can be used to identify CAS Registry Numbers for substances to be nominated for the DSL.

Volume I is the list of chemical substances submitted in compliance with TSCA and is in ascending CAS Registry Number order. It can be used if the CAS Registry Number for a substance is known, and the submitter wishes to verify that it represents the substance which is being reported. This verification is done by reviewing the CA Index or Preferred Name associated with the CAS Registry Number. It should describe the substance in question precisely. A dagger (†) after the CAS Registry Number indicates that additional descriptive information necessary for unambiguous identification of the substance is provided in the Chemical Substance Definitions Section found in Volume I; this information should be reviewed to ensure accurate verification.

Volumes II and III are the Substance Name Sections of TSCA and should be used if a substance name is available. This section is an alphabetical listing of chemical names including CA Index or Preferred Names, TSCA submitted chemical names and CAS synonyms which are associated with the corresponding CAS Registry Number. Examine the adjacent entries or search for a permutation of the name when a particular name is not found. Numeric and alphabetic prefixes, Roman or Greek letters or numbers used as locants, alternate spellings (e.g. sulfur and sulphur) and punctuation may affect the alphabetic sequence. The abbreviation C.I. is alphabetized as if expanded to Colour Index.

It is not uncommon for a single nonsystematic name to be associated with two or more different substances. Trademarks, trade names and names which do not specify locants or ratios are ambiguous. When such a name is located, look for the CAS Registry Number in Volume I, and review the specific CA Index or Preferred Name associated with that CAS Registry Number to ensure that the CAS Registry Number represents the substance which is to be nominated.

Volume IV is the Molecular Formula Section to TSCA and should be used if the molecular formula of a substance is known. This section lists TSCA substances of known chemical constitution arranged according to the Hill System. Review the name(s) cited below the molecular formula to find the CAS Registry Number for the substance to be nominated. Note, when using the Molecular Formula Index, chemical salts and molecular addition compounds names will be found under the molecular formula of the acid, in most cases. For example, the substance name trisodium salt of phosphoric acid would be found under the molecular formula of the substance name for phosphoric acid (H_3PO_4).

Volume V, which is the UVCB Section, should be used if a molecular formula cannot be calculated and an appropriate entry for the substance has not been located in the Name Section. This Index is an alphabetic list of Subset Headings with associated CAS Registry Numbers and CA Preferred Names for substances of **U**nknown or **V**ariable Composition, **C**omplex Reaction Products, and **B**iological Materials (**UVCB**'s). Subset Headings identify categories of closely related UVCB substances and provide a method of organizing UVCB's into subsets containing a relatively small number of entries.

European Inventory of Existing Commercial Chemical Substances (EINECS)

EINECS (the Advance Edition) published by the Commission of the European Communities is an Inventory of over 100,000 chemical substances which included substances from the European Core Inventory (ECOIN) and which were declared to be on the European Community market between 1 January 1971 and 18 September 1981. This Advance Edition is divided into a Master Inventory and five supplementary Indexes (a Name Index, a Molecular Formula Index, a UVCB Index, a Definition Index and a Plant Name Index). The Master Inventory contains a list of the chemical substances in ascending order according to their EINECS Number and their CAS Registry Number. It also provides the chemical name and molecular formula and substance definition, where appropriate. The **Name Index**, the **Molecular Formula Index** and the **UVCB Index** are similar to the corresponding indexes which were described previously for the TSCA Inventory.

Chemical Abstracts

Chemical Abstracts contains abstracts and index entries selected from scientific and technical literature. The weekly issues and volume indexes provide access to the world literature for chemical substances. At the present time, CAS publishes two complete volumes of abstracts and their corresponding indexes for each calendar year. The indexes to each volume include a **Formula Index**, a **Chemical Substance Index** and a **General Subject Index**. **The Formula Index** provides CA Index Names, CAS Registry Numbers and abstract numbers for chemical substances identified by molecular formula. Entries are arranged according to the Hill System. The **Chemical Substance Index** links the CA Index Name, which identifies a specific chemical substance with an abstract number. CA Index names are listed in alphabetical order and CAS Registry Numbers are given. The **General Subject Index** links subject terms, such as reactions, classes of substances, and plant and animal species, with their corresponding CA Abstract Numbers.

CA Index Guide

To assist users of CA Indexes in locating substances and other information, CAS publishes the **CA Index Guide**. The Index Guide details the major points of CA indexing policy and provides cross-references from various subject terms and substance names used in the literature to the controlled CA indexing terminology and CAS Registry Numbers when applicable. For substance identification, this publication provides many cross-references between common names and the CA Index Name and CAS Registry Number.

Registry Handbook-Common Names

A microform publication, this handbook is an alphabetic list of common names, CA Index Names, and other related names; associated with each name is the corresponding CAS Registry Number and molecular formula. There are over 1,250,000 names and 500,000 CAS Registry Numbers in this publication.

Registry Handbook-Number Section

This publication, in ascending CAS Registry Number order, provides CA Index Names and molecular formulas for over 7 million substances. The "base book" covers 1965-1971. Additions are provided in annual supplements based on specific Registry Number ranges.

CAS ONLINE

CAS ONLINE is a comprehensive chemical information database which offers substance-oriented and subject-oriented searching. This database makes information on chemistry and related disciplines available through three related files—the Registry File for substance identification, the CA File for bibliographic searching, and the CAOLD File for references to pre-1967 literature. CAS ONLINE is available on STN International by direct telephone link through most telecommunications networks. The Registry File contains information on over 9 million substances reported in the literature, with over 10,000 new entries added every week. CAS Registry Numbers for chemical substances can be identified by searching this File using molecular formulas, substructures, or a variety of chemical dictionary terms such as chemical names or name fragments.

CAS Registry Services

Through CAS Registry Services, submitters can obtain CAS Registry Numbers for their substances or CA Index Names for confidential substances. This service furnishes CAS Registry Numbers to customers either by retrieving existing CAS Registry Numbers and/or assigning new CAS Registry Numbers for chemical substances that meet CAS criteria for registration.

CTFA Cosmetic Ingredient Dictionary

This book, published by The Cosmetic, Toiletry and Fragrance Association, Inc., provides nomenclature recommendations for ingredients of formulations used by the cosmetic industry. It is an alphabetic listing of CTFA Adopted Names with associated substance information; this information includes CAS Registry Numbers, CTFA Recognized Disclosure Numbers, definitions, structures and related chemical or trade names. CAS Registry Numbers have been included in the monographs for many of the CTFA Adopted Names and are included in a numerical listing in Section VIII of this dictionary.

International Nonproprietary Names For Pharmaceutical Substances

This publication is a computer printout of several lists of international nonproprietary names (INN) which are published regularly in the WHO Chronicle. It includes the INN in Latin, English, French, Russian and Spanish together with references to the numbers of proposed and recommended lists in which they have been published; it also includes other data such as references to national nonproprietary names, pharmacopoeia monographs, molecular formulae and CAS Registry Numbers.

Registry of Toxic Effects of Chemical Substances (RTECS)

This publication from the US Department of Health and Human Services is a compendium of toxicity data extracted from the scientific literature and is prepared in compliance with the Occupational Safety and Health Act of 1970. RTECS contains names of different chemicals with their associated toxicity data, synonyms, molecular formula, RTECS Number and CAS Registry Number. There is a CAS Registry Number-RTECS Number Index which permits the reader to look up the RTECS data record of a substance when only its CAS Registry Number is known.

The Merck Index

The Merck Index published by MERCK & Co., Inc., is an alphabetic listing of chemicals, drugs, pesticides and biologically active substances. The monograph for each listing contains substance data such as chemical names, drug code numbers, literature references, toxicity data, CAS Registry Numbers and generic names.

USAN and the USP Dictionary of Drug Names

This publication by the United States Pharmacopeial Convention, Inc. is a dictionary of nonproprietary names, brand names, code designations, and CAS Registry Numbers for drugs. The names are listed in alphabetic order by the international nonpropietary name (INN).

5.2 Representing Substances with Well-Defined Structures

5.2.1 Specific Substance Name

A name which ***unambiguously*** describes the substance must be provided in BLOCK V of Report Form A and Report Form B. Ambiguous or incomplete names are not appropriate for substance identification or for subsequent inclusion on the DSL. Abbreviations, acronyms, laboratory designations, trade names, trademarks or any trivial names that are not chemically descriptive should not be submitted. (Do not cite commercial grades or degree of purity).

Further clarification of the level of specificity required is provided in Table 2.

Do not assume that an ambiguous name is adequate simply because there is only one isomer used in a particular industry or because the structural diagram on Report Form B shows the specific form intended.

Commercial dye names should not be used unless they are cross-referred to Colour Index Names in Volume 5 of the **Colour Index**. The **Colour Index** is a reference publication for manufacturers and users of dyes. It is published by the Society of Dyers and Colourists with assistance from the American Association of Textile Chemists and Colorists. Inclusion of this type of name in TSCA should not be interpreted as an authorization to report similar names for the DSL.

Inorganic substance names should identify all the elements and specify the element ratios. The use of empirical formulae or Stock Numbers is encouraged. (Stock Numbers are Roman numerals added parenthetically to indicate the state or states of oxidation).

Since the **Specific Substance Name** is an item of information which is used to identify and evaluate the eligibility of nominated substances, discrepancies between this name and the CA Index Name associated with the CAS Registry Number on Report Form A or between this name and the molecular formula/structural diagram on Report Form B may prevent the substance from being included on the DSL until the nominator provides further clarification. (See Chapter VII, Problem Letters).

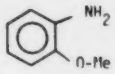
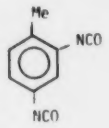
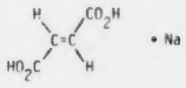
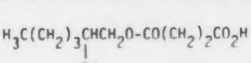
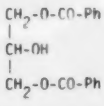
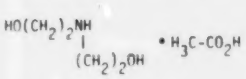
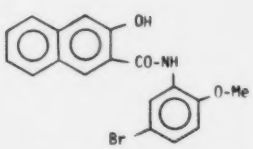
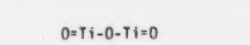
5.2.2 Molecular Formula

In the space provided on Form B, provide the molecular formula for the substance. The molecular formula is a summation of the actual numbers and kinds of atoms present in a molecule of a substance. In the case of salts or addition compounds, the molecular formula may be presented as a single summation formula or in the "dot-disconnect" format used by CAS.

Example: Succinic acid, dilithium salt

$LiO_2C(CH_2)_2CO_2Li$		$HO_2C(CH_2)_2CO_2H \cdot 2Li$
$C_4H_4Li_2O_4$	or	$C_4H_6O_4 \cdot 2Li$
(summation)		(dot-disconnect)

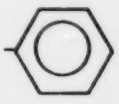
TABLE 2 - SPECIFIC SUBSTANCE NAMES FOR WELL-DEFINED SUBSTANCES

Substance	Unacceptable Name	Acceptable Name
	Anisidine	o-Anisidine or 2-Methoxyaniline
	Toluene diisocyanate or TDI	Toluene 2,4-diisocyanate
	Sodium fumarate or Monosodium butenedioate	Monosodium fumarate or Monosodium trans-butenedioate or Monosodium E-butenedioate
	Octyl succinate or Ethylhexyl succinate	Mono(2-ethylhexyl) succinate
	Glycerol benzoate or Glycerol dibenzoate	Glycerol 1,3-dibenzoate
	Diethanolamine acetate	Diethanolamine acetate salt
	Diethanolamine acetate or Diethanolamine acetate ester	Diethanolamine diacetate ester
	Diethanolamine acetate or Diethanolamine acetate ester	Diethanolamine monoacetate ester
	Blue APM or EMS 17	Brenthol BA or C.I. 37532 or C.I. Azoic Coupling Component 6 or 5'-Bromo-3-hydroxy-2-naphth-o-anisidide or N-(5-bromo-2-methoxyphenyl)-3-hydroxy-2-naphtha-lenecarboxamide
	Titanium oxide	Titanium oxide (Ti_2O_3)

5.2.3 Structural Information

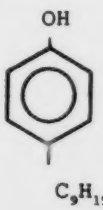
In the space provided on Form B, draw a structural diagram of the substance. The diagram should clearly indicate the identity of the atoms and the nature of the bonds joining them. Guidelines for preparing these diagrams are included in this section.

Common abbreviations are acceptable as long as they are unambiguous. The following examples indicate abbreviations which may be used.

Structure	Abbreviation	Structure	Abbreviation
$-CH_3$	Me-	$-C(=O)-OH$	$-CO_2H$
$-CH_2CH_3$	Et-	$-C(=O)-$	-CO-
$-(CH_2)_2CH_3$	Pr-	-CH=O	-CHO
$-CH(CH_3)-CH_3$	-Pr-*i* or -Pr-*iso*	$-C(=O)-CH3$	-Ac
$-(CH_2)_3CH_3$	-Bu	$-S(=O)(=O)-OH$	$-SO_3H$
$-CH_2CH(CH_3)-CH_3$	-Bu-*i* or -Bu-*iso*	$-S(=O)(=O)-$	$-SO_2-$
$-CH(CH_3)-CH_2CH_3$	-Bu-*s* or -Bu-*sec*	-N=O	-NO
$-C(CH_3)_2-CH_3$	-Bu-*t* or -Bu-*tert*		-Ph

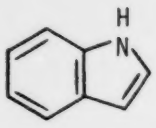
Alkyl groups will be assumed to be normal (linear) unless otherwise designated. If a substance has alkyl groups that are not linear, then the nature of the branching should be described as specifically as possible. Table 3 illustrates several different representations for nonylphenol.

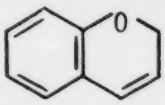
TABLE 3 - REPRESENTATIONS FOR NONYLPHENOL

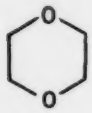
Submitted Name	Structural Representation	CAS Registry Number	CA Index Name
p-Nonylphenol		104-40-5	Phenol, 4-nonyl-
p-Isononylphenol		26543-97-5	Phenol, 4-isononyl-
Branched, 4-nonylphenol		84852-15-3*	Phenol, 4-nonyl-, branched
p-Tripropylene phenol		87247-00-5	Phenol, 4-tripropylene-

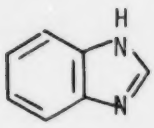
Carbon atoms in ring systems and their attached hydrogen atoms need not be explicitly shown.

For example,

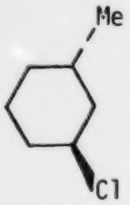




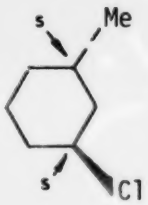




All known stereochemical details should be provided. Indicate whether the stereochemistry is absolute or relative. For example,



trans (relative)

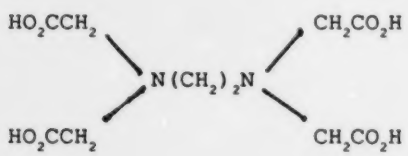


absolute

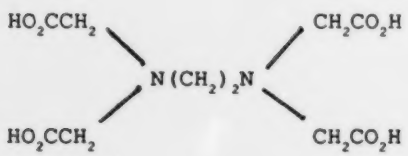
± (racemic)

The ratio of the components of an addition compound or salt should be clearly indicated if more than one form is theoretically possible. It should also be noted if the ratio is unknown.

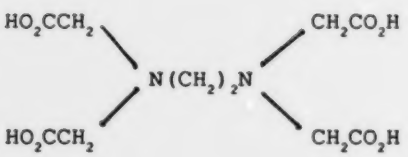
For example,



• 2 Na



• 4 Na



• x Na

Examples of Well Defined Substances

The examples which follow illustrate the information which is necessary to uniquely identify and represent substances with a well-defined structure. This information is needed to ensure that substances nominated for inclusion on the DSL are accurately represented. These examples should be reviewed carefully before completing BLOCK V of Report Form B.

EXAMPLE 1

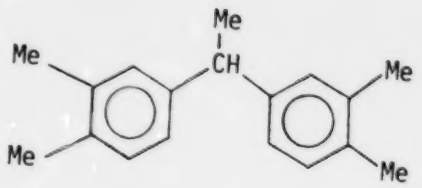
Specific Substance Name: N-(s-Butoxymethyl)acrylamide
Molecular Formula: $C_8H_{15}NO_2$
Structural Information: $H_2C=CH-CO-NH-CH_2-O-Bu-sec$ ***COMMENT:*** *Branching of alkyl groups must be indicated or the group will be assumed to be linear. For example, the Bu group on the following diagram would be represented linearly as* $-CH_2CH_2CH_2CH_3$ $H_2C=CH-CO-NH-CH_2-O-Bu$

EXAMPLE 2

Specific Substance Name: 1,1-Di-3,4-xylylethane;
1,1-Bis(3,4-dimethylphenyl)ethane

Molecular Formula: $C_{18}H_{22}$

Structural Information:



COMMENT: *The semicolon is used to separate the two names. Both names cite locants. Dixylylethane would not be an appropriate name for this substance*

EXAMPLE 3

Specific Substance Name: Sodium sebacate; Sodium decanedioate

Molecular Formula: $C_{10}H_{18}O_4$. x Na

Structural Information:

$HO_2C-(CH_2)_8-CO_2H$. x Na

COMMENT: *Use of "x" in the molecular formula and structure diagram clearly indicates the ratio of the salt is unknown.*

EXAMPLE 4

Specific Substance Name: Disodium sebacate; Disodium decanedioate
Molecular Formula: $C_{10}H_{18}O_4$. 2 Na
Structural Information: $HO_2C-(CH_2)_8-CO_2H$. 2 Na ***COMMENT:*** *When known, ratios should be cited in the name, formula, and structure. The formula could also be given as* $C_{10}H_{16}Na_2O_4$. *The structure could also be shown as* $NaO_2C-(CH_2)_8-CO_2Na$

EXAMPLE 5

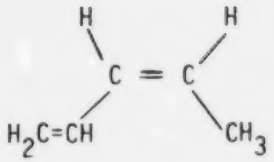
Specific Substance Name: 1,3-Pentadiene; Piperylene
Molecular Formula: C_5H_8
Structural Information: $H_2C=CH-CH=CH-CH_3$ ***COMMENT:*** *Stereochemistry is not cited in the name or structure. See EXAMPLE 6 for a specific stereoisomer.*

EXAMPLE 6

Specific Substance Name: cis-1,3-Pentadiene; *Z*-1,3-Pentadiene; cis-Piperylene

Molecular Formula: C_5H_8

Structural Information:



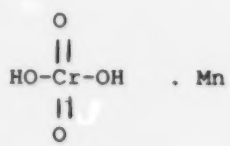
COMMENT: *Stereochemistry is cited in both the name and structure. See EXAMPLE 5 for an example of a non-stereospecific substance.*

EXAMPLE 7

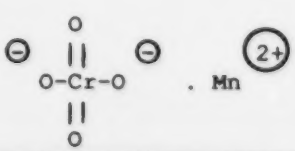
Specific Substance Name: Manganese(II) chromate(IV); Manganese chromate($MnCrO_4$); Chromium manganese oxide($MnCrO_4$)

Molecular Formula: $H_2CrO_4.Mn$

Structural Information:



COMMENT: *Stock numbers or empirical formulae should be included in the name when known. The following diagram is also acceptable:*



EXAMPLE 8

Specific Substance Name: PVC; Polyvinyl chloride

Molecular Formula: $(C_2H_3Cl)_x$

Structural Information:

$ClCH{=}CH_2$ + ABIN ⟶ Polyvinyl chloride

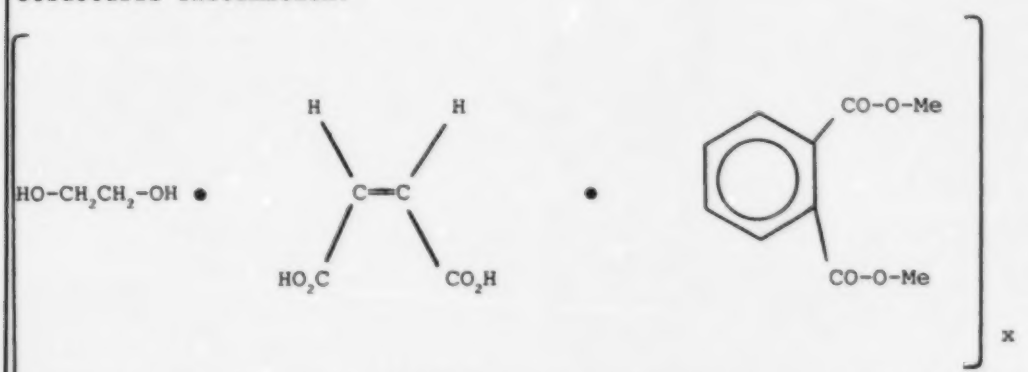
COMMENT: *Polymeric substances are to be described in terms of their starting reactants. Starting reactants are defined as those which become part of the polymer composition. If the role of the reactant ABIN is an initiator, it should not be included in the polymer description appearing on the DSL. ABIN, if placed in commerce, must be reported separately.*

EXAMPLE 9

Specific Substance Name: Maleic acid-dimethyl phthalate-ethylene glycol copolymer;cis-2-Butenedioic acid-dimethyl phthalate-ethylene glycol polymer

Molecular Formula: $(C_2H_6O_2 \cdot C_4H_4O_4 \cdot C_{10}H_{10}O_4)_x$

Structural Information:



COMMENT: *The polymer molecular weight and percent composition of the reactants should not be cited on the Report Form.*

EXAMPLE 10

Specific Substance Name: Styrene-polyethyleneglycol monoallylether

Molecular Formula: $((C_2H_4O)_nC_3H_6O.C_8H_8))x$

Structural Information:

$$\left[H_2C{=}CH{-}CH_2{-}(O{-}CH_2{-}CH_2)_n{-}OH \quad \bullet \quad Ph{-}CH{=}CH_2 \right]_x$$

CAS Registry Number 27274-31-3

CAS Registry Number 100-42-5

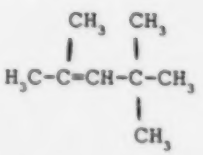
COMMENT: *Names and CAS Registry Numbers rather than structure diagrams may be used to describe reactants. Polyglycol derivatives should be represented on the basis of their polymeric structure.*

EXAMPLE 11

Specific Substance Name: 2,4,4-Trimethyl-2-pentene

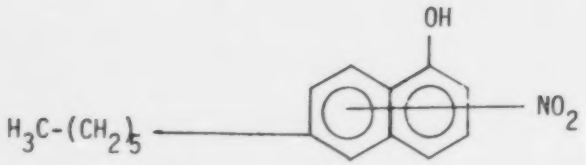
Molecular Formula: C_8H_{16}

Structural Information:



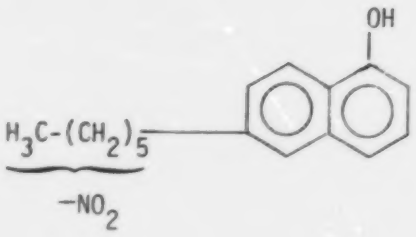
COMMENT: *Isobutylene dimer would not be an appropriate specific substance name for this structure. Designations such as dimer, trimer, etc. are appropriate only when the degree of polymerization is a specific value from two through ten but the specific structure is unknown.*

EXAMPLE 12

Specific Substance Name: ar-Nitro-6-hexyl-1-naphthol; ar-Nitro-6-hexyl-1-hydroxynaphthalene
Molecular Formula: $C_{16}H_{19}NO_3$
Structural Information: 

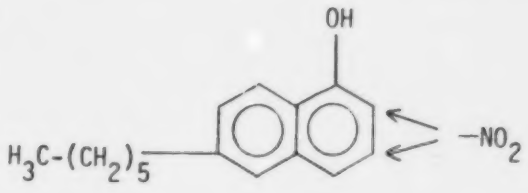
COMMENT: *Compare to EXAMPLES 13 and 14. The structural representation should represent all known specificity.*

EXAMPLE 13

Specific Substance Name: 6-(Nitrohexyl)-1-naphthol; 6-(Nitrohexyl)-1-hydroxynaphthalene
Molecular Formula: $C_{16}H_{19}NO_3$
Structural Information: 

COMMENT: *Compare to EXAMPLES 12 and 14. The structural representation should represent all known specificity.*

EXAMPLE 14

Specific Substance Name: 2 or 3-Nitro-6-hexyl-1-naphthol; 2 or 3-Nitro-6-hexyl-1-hydroxynaphthalene
Molecular Formula: $C_{16}H_{19}NO_3$
Structural Information:    ***COMMENT:*** *Compare to EXAMPLES 12 and 13. The structural representation should represent all known specificity.*

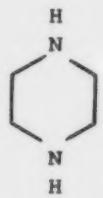
EXAMPLE 15

Specific Substance Name: Aluminum nickel
Molecular Formula: Ni_3Al
Structural Information: Ni_3Al ***COMMENT:*** *Known stoichiometry should be indicated. Ni-Al would be unacceptable.*

EXAMPLE 16

Specific Substance Name: Synthetic geikielite
Molecular Formula: $Mg.O_3Ti$
Structural Information: ***COMMENT:*** *Synthetic minerals should indicate in the Specific Substance Name that they are synthetic.*

EXAMPLE 17

Specific Substance Name: Piperazine, hexahydrate; Arpezine
Molecular Formula: $C_4H_{10}N_2 \cdot 6H_2O$
Structural Information:  . 6 H_2O ***COMMENT:*** *Hydrates should not be reported for the DSL. Substances which are described as hydrates will be represented on the DSL as the anhydrous substance.*

5.3 Representing Substances Which are Complex and Variable

Substances which cannot be represented by a complete structure diagram and specific molecular formula are known as substances of **U**nknown or **V**ariable **C**omposition, **C**omplex reaction products, or **B**iological materials (**UVCB**'s). If the nominator knows the CAS Registry Number for his complex and variable substance, then the substance should be reported by entering the name and corresponding Registry Number on a Report Form A. If the CAS Registry Number for the substance is not known, then the substance should be nominated on a Report Form B using the guidelines in this section.

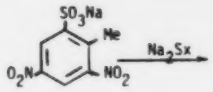
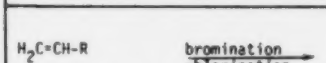
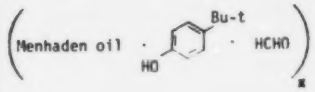
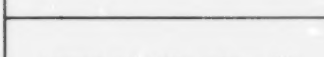
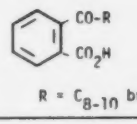
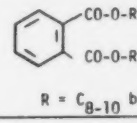
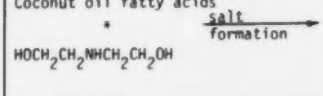
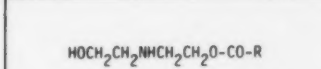
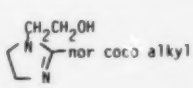
5.3.1 Specific Substance Name

In BLOCK V, a name which describes the substance, components, or precursors as precisely as possible should be provided. The guidelines for names for UVCB substances are similar to the instructions given in 5.2.1 for Well-Defined Substances and this section should be reviewed for additional information.

Since the specific substance name is the first item of information used to identify a substance nominated on Report Form B, any discrepancy between this name and the other descriptive information cited for the product, components, or precursors may prevent the substance from being included on the DSL until the submitter provides clarification. (See Chapter VII, Problem Letters). Ambiguous or incomplete names such as abbreviations, acronyms, or laboratory designations are not appropriate as identification for reactants or precursors.

For further clarification of the level of specificity required, see Table 4.

TABLE 4 - SPECIFIC SUBSTANCE NAMES FOR COMPLEX AND VARIABLE SUBSTANCES

SUBSTANCE	UNACCEPTABLE NAMES	ACCEPTABLE NAMES
	RGP Brown or Sodium dinitrotoluenesulfonic acid polysulfide	C.I. Sulphur Brown 42 or C.I. 53030 or Thionone Brown RD or Sodium 3,5-dinitro-o-toluenesulfonic acid reaction product with sodium polysulfide
	Halonenated C_{12-30} α-alkenes or Bromo and chloroalkenes	C_{12-30} α-alkenes bromo and chloro derivs. or C_{12-30} α-alkenes, brominated and chlorinated or Alkenes, C_{12-30} α-brominated and chlorinated
	Fish oil-butyl phenol-formaldehyde resin or Marine oil, p-tert-butylnhenol, formaldehyde resin or Menhaden oil, 4-butylphenol, formaldehyde resin	Menhaden oil, p-tert-butylnhenol, formaldehyde resin
	Vegetable fatty acids sodium salts or Linseed sodium salts or Linseed oil sodium salts	Linseed oil fatty acids sodium salts or Fatty acids, linseed-oil, sodium salts
	Nonyl phthalate or Isononyl phthalate or Mono-C_{8-10}-alkyl phthalate	Mono-C_{8-10}-branched alkyl phthalate or 1,2-Benzenedicarboxylic acid, mono-C_{8-10}-branched alkyl esters
	Dinonyl phthalate or Diisononyl phthalate or Di-C_{8-10}-alkyl phthalate	Di-C_{8-10}-branched alkyl phthalate or 1,2-Benzenedicarboxylic acid, di-C_{8-10}-branched alkyl esters
	Coconut oil fatty acids reaction product with diethanolamine	Coconut oil fatty acids-diethanolamine salt or Coconut oil fatty acids, compound with diethanolamine or Fatty acids, coco, compds. with diethanolamine
	Coconut oil fatty acids reaction product with diethanolamine	Coconut oil fatty acids diethanolamine monoester or Fatty acids, coco, 2-[(2-hydroxyethyl)amino]ethyl ester
	Coconut oil reaction product with aminoethyl ethanolamine or Coco alkylimidazolineethanol	Coconut oil and N-(2-aminoethyl)ethanolamine cyclization product or 1H-Imidazole-1-ethanol,4,5-dihydro-2-norcoco alkyl derivs.

5.3.2 Molecular Formula

Most UVCB substances cannot be represented by a specific molecular formula. In such cases, this space need not be completed. However, in some cases, it may be possible to provide a molecular formula which is a summation of the range of numbers and specific kinds of atoms present in a molecule of a substance. Hypothetical or idealized molecular formulae must not be cited.

Molecular formulae for salts and addition compounds, if provided, may be presented as a single summation formula or in the dot-disconnect format used by CAS.

Example: C_{6-12}-alkyldicarboxylic acid, disodium salt

$NaO_2C-C_{6-12}alkyl-CO_2Na$ $HO_2C-C_{6-12}alkyl-CO_2H \cdot 2Na$

$C_{8-14}H_{12-24}Na_2O_4$ or $C_{8-14}H_{14-26}O_4 \cdot 2Na$

5.3.3 General Guidelines

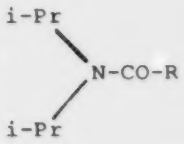
Since, in most cases, a unique structure diagram cannot be provided, descriptive information for the substance, components or precursors should be given in BLOCK V of Report Form B. If additional space is required, supplementary pages may be attached. The number of attached pages should be cited in BLOCK V.

If a partial structural diagram can be provided, this diagram should clearly indicate the identity of the atoms and the nature of the bonds joining them. Common abbreviations for substituents and functional groups are acceptable as long as they are unambiguous. Alkyl groups will be assumed to be normal (linear) unless otherwise designated.

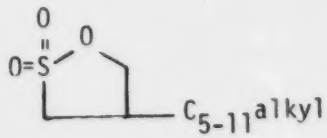
Substance representations should describe all known specificity, such as salt ratios and stereochemical details.

The next examples are intended to illustrate the level of specificity which should be provided. It is strongly recommended that the nominator follow the style of the examples given.

EXAMPLE 18

Specific Substance Name: *N,N*-Diisopropyl tall oil fatty amides
Molecular Formula:
Substance Information:    -CO-R = tall oil fatty acyl ***COMMENT:*** *A substance can be described in terms of a partial structure diagram.*

EXAMPLE 19

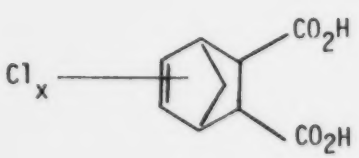
Specific Substance Name: 4-(C_{5-11} -alkyl)-1,2-oxathiolane, *S,S*-dioxide
Molecular Formula:
Substance Information:    ***COMMENT:*** *Carbon ranges of alkyl groups must be defined.*

EXAMPLE 20

Specific Substance Name: C_8 branched alkylphenol ethoxylate
Molecular Formula:
Substance Information:

COMMENT: *Representations should describe all known specificity, including structural information for alkyl groups.*

EXAMPLE 21

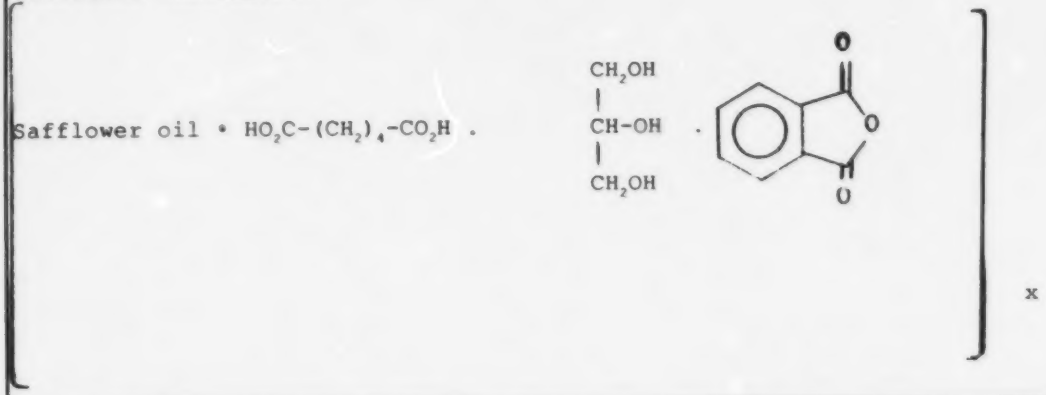
Specific Substance Name: Chlorinated 5-norbornene-2,3-dicarboxylic acid; Bicyclo[2.2.1]hept-5-ene-2,3-dicarboxylic acid, chloro derivs.
Molecular Formula:
Substance Information: 

EXAMPLE 22

Specific Substance Name: Safflower oil, polymer with adipic acid, glycerol and phthalic anhydride

Molecular Formula:

Substance Information:

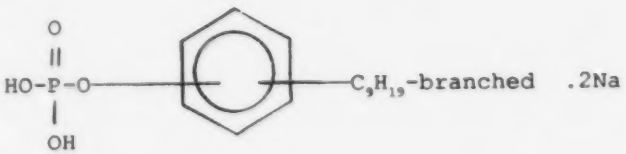


EXAMPLE 23

Specific Substance Name: Phosphoric acid, mono(branched nonyl) phenyl ester, disodium salt

Molecular Formula: $C_{15}H_{25}O_4P$. 2Na

Structural Information:



5.3.4 Plant and Animal Products

Complex and variable substances derived from animal or botanical sources must be identified by specifying the genus species as well as other unambiguous common names of the source.

Do not assume that a common name is adequate simply because there is only one source used in a particular industry. For example, mint oil should not be used to identify Japanese mint oil, Bergamot oil, Spearmint oil, or Peppermint oil. Vegetable oil should not be used to identify corn oil, soybean oil, or linseed oil.

According to Criterion 4 of the Substance Criteria discussed in Chapter III, the method of extraction should be considered when determining whether to report substances derived from naturally occurring sources.

The next examples are intended to illustrate the level of specificity which should be provided.

EXAMPLE 24

Specific Substance Name: Soybean fatty acids, diethylenetriamine salt
Molecular Formula:
Structural Information: Soya fatty acids . x $H_2NCH_2CH_2NHCH_2CH_2NH_2$

EXAMPLE 25

Specific Substance Name: Mixed vegetable oils fatty acids methyl esters
Molecular Formula:
Structural Information: Methyl esters of mixed vegetable oils fatty acids ***COMMENT:*** *If a substance is obtained from a manufacturing process which used different types of plants to produce an oil, then the term, "mixed vegetable" should be used in the name.*

EXAMPLE 26

Specific Substance Name: Japanese mint oil; Japanese peppermint oil
Molecular Formula:
Structural Information: Oil extracted from Mentha arvensis, var. piperascens ***COMMENT:*** *The genus species of the plant which was processed to produce the oil must be identified.*

EXAMPLE 27

Specific Substance Name: Mentha citrata oil; Bergamot mint oil
Molecular Formula:
Structural Information: Oil extracted from Mentha citrata ***COMMENT:*** *Bergamot oil would not be an appropriate specific chemical name since bergamot oil is also extracted from Citrus bergamia.*

EXAMPLE 28

Specific Substance Name: Acetylated lemongrass oils
Molecular Formula:
Structural Information: Lemongrass oil —(acetylation)→ 8007-02-1* ***COMMENT:*** *The genus species, Cymbopogon citratus, is associated with CAS Registry Number 8007-02-1* in the Chemical Definition Section of TSCA.*

EXAMPLE 29

Specific Substance Name: Terpene-free bergamot oil fraction
Molecular Formula:
Structural Information: Terpene-free fraction distilled from oil extracted from Citrus bergamia.

EXAMPLE 30

Specific Substance Name: Corn oil deodorizer distillate
Molecular Formula:
Structural Information: A complex mixture of fatty acids, sterols, aldehydes, ketones, and other materials prepared by the steam distillation of corn oil followed by condensation of the steam containing these materials.

5.3.5 Reaction Products

The reaction scheme should include the chemical identity of the immediate precursors, the nature of the reaction, and the reactants whether or not they are implied by the reaction term. Reaction terms should be as specific as possible (e.g., acetylation, alkaline hydrolysis, chlorination, diazotization, epoxidation). General reaction terms such as addition, condensation and reaction should not be used.

Although the substance itself may be a UVCB substance, the precursors or components may be well-defined substances. Any descriptions provided for well-defined precursors or components should meet the specifications discussed previously in this chapter.

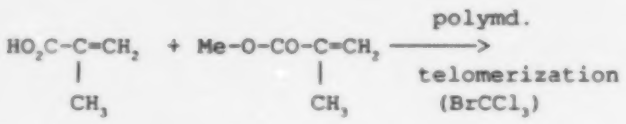
The next examples are intended to illustrate the level of specificity which should be provided.

EXAMPLE 31

Specific Substance Name: Polymer of methyl methacrylate, methacrylic acid and bromotrichloromethane

Molecular Formula: $(C_4H_6O_2 \cdot C_5H_8O_2)_x \cdot x\ CBrCl_3$

Structural Information:

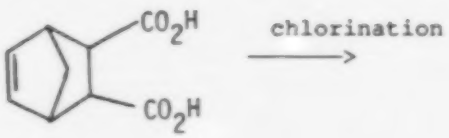


EXAMPLE 32

Specific Substance Name: Chlorinated 5-norbornene-2,3-dicarboxylic acid; Bicyclo[2.2.1]hept-5-ene-2,3-dicarboxylic acid, chloro derivs.

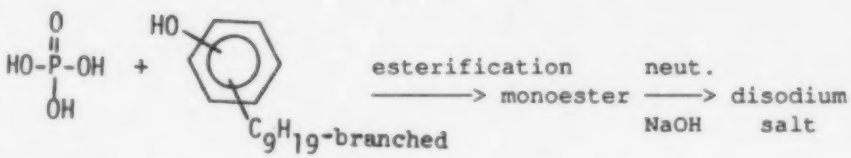
Molecular Formula:

Structural Information:

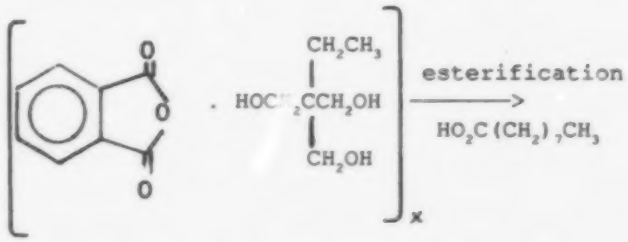


COMMENT: *Compare to EXAMPLE 21. Either method is acceptable. Both depict the same degree of specificity.*

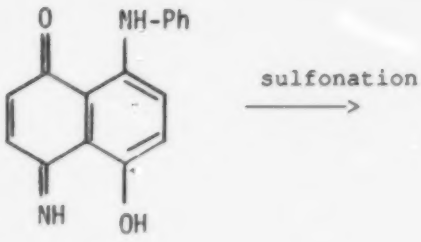
EXAMPLE 33

Specific Substance Name: Phosphoric acid, mono(branched nonyl) phenyl ester, disodium salt
Molecular Formula:
Structural Information: 
COMMENT: Compare to EXAMPLE 23. Either method is acceptable. Both depict the same degree of specificity.

EXAMPLE 34

Specific Substance Name: Phthalic anhydride - trimethylolpropane copolymer, pelargonate
Molecular Formula:
Structural Information: 

EXAMPLE 35

Specific Substance Name: C.I. Acid Black 47; C.I. 56055; Sulfonine Grey G
Molecular Formula:
Structural Information: 

EXAMPLE 36

Specific Substance Name: Tallow fatty acid ethanolamine amides
Molecular Formula:
Structural Information: Tallow fatty acids + $H_2NCH_2CH_2OH$ ⟶ amides ***COMMENT:*** *Since tallow fatty acids and ethanolamine may react to form a variety of different products (e.g., salts, esters, cyclization products), the product description should be as specific as possible and include typical composition.*

5.3.6 Products from Industrial Processes

Some Complex and Variable substances are most conveniently described by text rather than structural diagrams or reaction schemes.

The description should include precursors, method of preparation, process terms (low-boiling, catalytic reformed), physical properties if known and typical chemical composition. Specifically, the substance information should describe the substance as uniquely as possible and include the following items, if known:

- Process Description (catalytic cracking, dewaxed, destructive distn.)
- Carbon (alkyl) range (C_4 through C_{12})
- Physical properties (boiling range, viscosity, solid, slag, softening pt.)
- Principal chemical composition (hydrocarbons, sulfides, terpenes)
- Source (e.g., petroleum, coal)

It is recommended that, whenever appropriate, schematic diagrams (depicting the industrial process and the point where the nominated substance is isolated) be provided.

The description should not include process terms that are unqualified or broadly descriptive or undefined trade jargon.

The next examples are intended to illustrate the level of specificity which should be provided. Additional examples of the type of descriptive information required can be found in the Chemical Substance Definitions sections of TSCA.

EXAMPLE 37

Specific Substance Name: C_{9-13} Alkylbenzene distillation residues
Molecular Formula:
Structural Information: Complex residue from the distillation of C_{9-13} alkylbenzenes having a boiling point > 600°F. Composed primarily of diphenylalkanes, dialkylbenzenes, and diphenyldialkanes. The alkyl groups are linear C_{9-13}.

EXAMPLE 38

Specific Substance Name: Ferrous metals blast furnace slag
Molecular Formula:
Structural Infcrmation: Fused substance formed by the action of a flux on the gangue of iron-bearing materials charged to the blast furnace and on oxidized impurities in the iron produced. Composed primarily of sulfur and oxides of Al, Ca, Mg and Si.

EXAMPLE 39

Specific Substance Name: Oxidized black liquor; Spent pulping liquor, oxidized

Molecular Formula:

Structural Information:

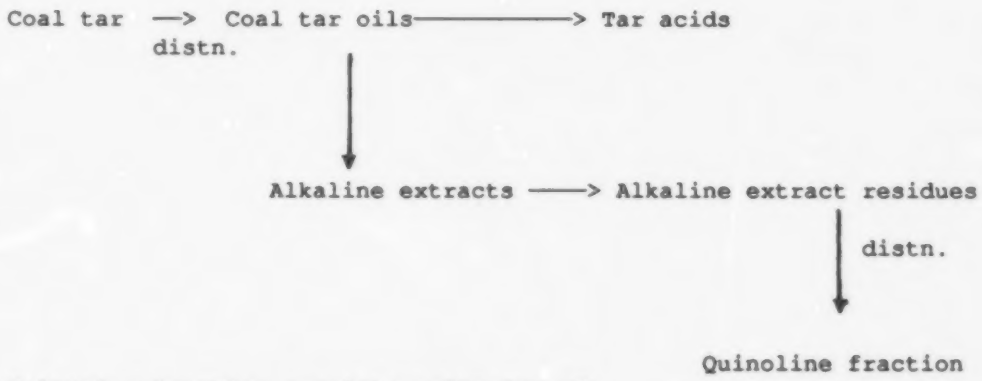
Substance produced by the oxidation of black liquor with pulping chemicals used in Kraft, sulfite, semichemical, or other pulping processes. Composed primarily of partially oxidized lignosulfonates, sugars and hemicelluloses.

EXAMPLE 40

Specific Substance Name: Quinoline fraction of coal tar alkaline extract residues

Molecular Formula:

Structural Information:



Quinoline fraction consists primarily of quinoline, isoquinoline, methylquinolines, and dimethylquinolines.

EXAMPLE 41

Specific Substance Name: Coal coke
Molecular Formula:
Structural Information: Carbonaceous residue from the high temperature (>700°C) destructive distillation of coal. Composed primarily of carbon but may contain sulfur and ash.

EXAMPLE 42

Specific Substance Name: Petroleum coke
Molecular Formula:
Structural Information: Carbonaceous residue from the high temperature destructive distillation of petroleum fractions. Composed primarily of carbon but may contain some hydrocarbons with high carbon to hydrogen ratios.

EXAMPLE 43

Specific Substance Name: Naphtha, petroleum, hydrodesulfurized full-range
Molecular Formula:
Structural Information: A complex combination of hydrocarbons obtained from a catalytic hydrodesulfurization process. It consists of hydrocarbons having carbon numbers predominantly in the range of C_4 through C_{12} and boiling in the range of approximately 30°C to 250°C.

EXAMPLE 44

Specific Substance Name: Copper smelting slag
Molecular Formula:
Structural Information: Substance resulting from the smelting of copper and precious metals obtained from primary and secondary sources and plant reverts. Composed primarily of iron oxides and SiO_2. May contain Cu, Pb, Ni and other non-ferrous metals and oxides.

EXAMPLE 45

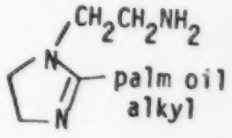
Specific Substance Name: Olivine vanadium blue
Molecular Formula:
Structural Information: An inorganic pigment formed by the high temperature calcination of vanadium (IV) oxide and silicon oxide in varying amounts. Ionic diffusion occurs to form a crystalline matrix. Alkali or alkaline earth halides may be included as modifiers.

5.3.7 Combinations of UVCB Substances

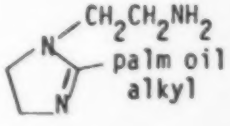
Because of their complexity, when nominating substances produced by the combination of UVCB substances, it is necessary to describe the precursors, reactants, reaction scheme and nominated substance as specifically as possible. It is strongly recommended that before reporting these types of substances all sections of this chapter be carefully reviewed.

The next examples are intended to illustrate the level of specificity which should be provided.

EXAMPLE 46

Specific Substance Name: Palm oil and diethylenetriamine cyclization product compound with distillation residue
Molecular Formula:
Structural Information:  + Residue from distillation of C_{6-18} satd. and unsatd. monobasic acids and C_{8-15} dibasic acids. Consists of ⟶ Salts C_{9-18} satd. dibasic acids May also contain polymers, anhydrides and polyesters.

EXAMPLE 47

Specific Substance Name: Palm oil and diethylenetriamine cyclization product, compound with oxidized light petroleum distillates
Molecular Formula:
Structural Information:  + Oxidized light petroleum distillates ⟶ salts 64742-98-9*
COMMENT: *The use of CAS Registry Number 64742-98-9* eliminates the need for the inclusion of a lengthy description of the starting material.*

EXAMPLE 48

Specific Substance Name: Oxidized sesquiterpene fraction of Cedarwood oil
Molecular Formula:
Structural Information: Sesquiterpene fraction distilled from oil extracted from Cedrus atlantica, Pinaceae. ——oxidation——>

EXAMPLE 49

Specific Substance Name: Oxidized sesquiterpene fraction of Cedarwood oil, acetylated
Molecular Formula:
Structural Information: Oxidized sesquiterpene fraction of oil from Cedrus atlantica, Pinaceae ——acetylation——>

COMMENT: *Substances must be described completely on each reporting form. For example, in reporting the substances shown in EXAMPLES 48 and 49, the genus species must be specified for each. "Substance reported on Report Form XXXXXXXX" is not an adequate description of the starting material in EXAMPLE 48.*

Chapter VI - CONFIDENTIALITY

6.1 General Remarks

Any of the data provided on DSL Report Forms A and B may be claimed as confidential; however, it is the responsibility of the submitter to make, and substantiate on request, all such claims. The protection of information claimed as confidential on the report forms will be consistent with the provisions of the **Access to Information Act** and sections 19 to 24 of CEPA. Information not claimed as confidential will be considered non-confidential and may be released without further notice to the submitter.

6.2 Claiming Confidentiality

Confidentiality must be specifically claimed by checking the appropriate boxes on Report Forms A or B. Form B must be used if the identity of a substance is to be claimed confidential.

6.2.1 Form A

Report Form A (substance identity is not confidential) allows a confidentiality claim to be entered for any information item provided on a particular substance. Each line in the **Confidentiality Claims** section of the form relates only to the substance reported on the same line. Checking one or more boxes for confidentiality on a particular line will apply only to the substance on that line, not to all substances reported on the form.

6.2.2 Form B

If the identity of a substance is known and claimed confidential for the purposes of the DSL, the box labeled **Substance Identity is Confidential** must be checked. Confidentiality for other information items can be claimed by checking the appropriate boxes under the heading **Confidentiality Claims**, as for Form A.

6.3 Substantiating Confidentiality Claims

6.3.1 Information Items

By signing the **Certification Statement** appearing on the front of the form, a submitter certifies to the truth of all confidentiality claims. The **Certification Statement** includes the following phrase:

> "I hereby certify....the information for which confidentiality is claimed on this form meets the criteria for determining confidentiality outlined on the back of this form."

The **Confidentiality Statements** [seven on Form A; eight on Form B] on the back of the form elaborate on each of the **Confidentiality Claims** which can be checked in Block V. (Section 4.2.8 provides additional information on each of the confidentiality statements.) The **Criteria for Confidentiality** beneath these statements indicates six criteria that must be satisfied by each confidentiality claim:

1. The information is confidential to the company;

2. The company has taken, and intends to continue to take, measures that are reasonable in the circumstances to maintain the confidentiality of the information;

3. The information is not, and has not been, reasonably obtainable by third persons by use of legitimate means except with the consent of the company;

4. The information is not available to the public;

5. Disclosure of the information may reasonably be expected to cause substantial harm to the competitive position of the company;

6. Disclosure of the information may reasonably be expected to result in a material financial loss to the company or a material financial gain to the company's competitors.

For example, a submitter claiming confidentiality for **Manufacture** certifies that, for the manufacture of that particular substance by his/her company, all six confidentiality criteria apply to the **Manufacture** statement.

If one or more of the criteria is not applicable to a particular claim, confidentiality cannot be requested.

Excessive confidentiality claims for a particular substance should be carefully reviewed to determine whether all are necessary. For example, if confidentiality has been claimed for **Site**, **Corporation** and **Use** there may be no need to claim the **Amount** confidential. Submitters will be notified if any requests for confidentiality are unacceptable and allowed an opportunity to review and provide additional justification for their claim.

6.3.2 Substance Identity

By claiming confidentiality for the chemical identity of a particular substance, a submitter is certifying that, to the best of his/her knowledge, he/she is the sole Canadian manufacturer/importer/user of this substance, or that all other Canadian manufacturers/importers/users of this substance also consider the identity confidential.

If the DSL is to serve industry, government and the public as a comprehensive list of existing chemicals in Canadian commerce, the number of confidential entries must be minimal. Consequently, a claim of confidentiality for substance identity will be carefully evaluated. Environment Canada must be satisfied that inclusion of the name of this substance in a list of 30,000-50,000 (the anticipated size of the the DSL) will compromise the financial and competitive position of the submitter. (A submitter with a legitimate need to avoid association with a substance can do so by claiming **Corporation** and **Site** confidential.) Accordingly, any claim must be accompanied by a letter (with Form B Number clearly marked) addressing the following questions:

1. What detrimental effects to the company's competitive position would result from the identity of the substance appearing on the DSL? How would a competitor use such information?

2. Has the identity of the substance been kept confidential to the extent that competitors do not know it is being manufactured, imported or used by anyone?

3. Has the substance been patented and, consequently, disclosed through the patent?

4. Is the fact that the substance is being manufactured, imported or used for commercial purposes publicly available; for example, in technical journals or trade publications?

5. What measures have been taken to prevent undesired disclosure of substance identity? What is the extent of disclosure to date?

6. Is this substance in an effluent, emission or waste entering the environment? Is the substance in a product available to the public?

7. If the substance is in a product available to the public, can it be identified by analysis of the product?

8. For what purpose is this substance manufactured, imported or used?

9. To the best of your knowledge, has Environment Canada, another federal agency, a provincial agency or the agency of a foreign government ever made a determination that this substance a) is having an immediate, long term effect on the environment, b) constitutes a danger to the environment, or c) constitutes or may constitute a danger in Canada to human life or health? If the answer is yes, elaborate.

When claiming confidentiality for substance identity, submitters must provide the following information on Form B:

(1) the CAS Registry Number and corresponding CA Index Name if they have been assigned,

OR

a *systematic* chemical name (for DSL purposes Environment Canada will only accept a CA Index or CA Preferred Name) if a CAS Registry Number has not been assigned. Alternate names (if available) and descriptive information for the substance in question must also be provided in the appropriate spaces on the form;

(2) a proposed masked name (Instructions for developing this name can be found in Appendix III.)

Submitters should be aware that Environment Canada will only disclose the fact that a substance is included on the confidential section of the DSL to any individual or company that can establish, to Environment Canada's satisfaction, a legitimate intent to manufacture or import this substance. Other information such as the particular masked name, uses, manufacturer or importer will not be revealed.

6.4 Proposed Masked Names

All substances nominated for the DSL and consistent with the eligibility criteria must be published on the List. Substances which have been accepted as confidential by Environment Canada will be included in the DSL using a name which masks the chemical identity.

Section 31 of CEPA provides for the implementation of regulations for the masking of substance names. These regulations are currently being developed and will be published in Canada Gazette I for comment prior to formal promulgation. They are anticipated to be similar to the generic naming procedures used by the U.S. EPA for their TSCA Inventory.

For purposes of consistency, it is desirable to have masked names proposed during DSL reporting, structured using the criteria in Appendix III. This appendix is a modified version of the EPA guidelines, adjusted to accommodate Canadian needs, and should reflect to a fair degree of accuracy the eventual criteria that will be prescribed in the regulations. Submitters wishing to claim confidentiality for substance identity should refer to this section for guidance in developing masked names.

The intent of masking is to protect the identity of a substance which a submitter considers proprietary. Masking of a substance name will only be acceptable to the extent necessary to disguise the full identity. In most cases, masking of a single structural feature should be sufficient; although multiple masking will be acceptable if it can be justified. Submitters are responsible for proposing a masked name with the submission of report Form B. If a masked name is not provided, Environment Canada will consider this a waiver of the confidentiality claim and publish the unmasked substance name on the DSL.

If the claim for confidentiality of substance identity is accepted by Environment Canada, the proposed masked name will be evaluated to determine whether it is consistent with the guidelines, and following promulgation, the regulations. If judged consistent with these criteria, the masked name will be accepted as a means of identifying the substance for the DSL. If not, inconsistencies will be indicated to the submitter and an alternative name requested.

Chapter VII - PROBLEM LETTERS

7.1 General Remarks

Problems with information provided on the Domestic Substances List Report Forms may be recognized during processing. To resolve these difficulties, problem letters (in the language of the form) will be sent to the attention of the **Principal Technical Contact** at the **Corporate Headquarters** address identified in BLOCK II. These letters will contain one or more statements which will identify the error, omission, or inconsistency which has stopped the processing of the Form and will request information to complete or clarify the reported data. Each problem letter will refer to a specific substance entry and will be identified by Form and Line Number.

Submitters are not obliged to respond to problem letters. However, failure to respond within forty-five (45) days from the date identified on the problem letter will automatically disqualify the submission from further Domestic Substances List processing.

Responses to Problem Letters must be provided on either Domestic Substances List Report Form A or Form B. Before responding to the problem letter, the corresponding **Submitting Company Copy** for each form identified in the letter should be located for reference. Submitters are advised to read the problem letter carefully and to provide all requested information on the Replacement Form. Since data will not be transferred by Environment Canada from one Report Form to another, the submitter should fill out each Form as required by the Problem Letter and resubmit the original information, as necessary.

BLOCKS II and IV must be completed on each form. The completed Replacement Form and a copy of the problem letter should be forwarded to Environment Canada at the address listed in Section 4.1.

7.2 General Types of Problems

a) BLOCKS I, II, III, IV

Missing Information

The **Certification Statement** should have been signed. **Corporate Headquarters**, **Principal Technical Contact** and, for manufacturers, **Site of Manufacture** should have been noted either on the form or attachment (see 4.2.3).

b) BLOCK V

Missing Information

On Form A, each substance should have been identified by a **CAS Registry Number** and a **Specific Substance Name**.

On Report Form B, a **Specific Substance Name** and substance description information should have been provided.

Data on **Activity**, **Amount**, and **Use** should have been provided. Importers should have identified the **Destination of Import**.

Invalid Information

CAS Registry Numbers are checkable. The transposition of digits or misrecording of the CAS Registry Number will result in an invalid entry.

Only one **Activity** may be indicated per line. Checking more than one will invalidate substance entry.

Valid **Amount** entries are A, B, C, D, E, F, G and N. Any other letter or digit will invalidate the entry.

Use(s) must be indicated by the Use Codes listed in Table 1 of Chapter IV. Any other entry will terminate substance processing.

Inconsistent Substance Information

On Form A, the **Specific Substance Name** must agree with the structure and the corresponding CA Index Name or CAS Preferred Name associated with the **CAS Registry Number** which is provided.

On Form B, the **Specific Substance Name** must agree with the substance description information which is provided. Problem letters will be issued for forms with descriptive entries that are illegible or lacking necessary information or attachments. If the substance description is identified as a problem, it should be corrected and reentered.

Non-Reportable Substances

The specific reporting guidelines in Chapters III and IV describe substances which should be reported and the manner in which they are to be reported.

7.3 DSL Report Form A Problem Responses

DSL Report Form A problem letters cite the Form Number and Line Number of the substance entry that has been identified as a problem. *Responses are not required for substance entries on Line Numbers which do not receive a problem letter.*

The Form Number/Line Number of the original Report Form A should be entered under Replacing Form and Replacing Line Number (bottom right hand corner) of the new form. Responses to problems from different lines on a single Report Form A or from different Form A's are not to be combined on one replacement form.

Attach a photocopy of the problem letter to the replacement form. The **Submitting Company Copy** of the replacement form and the problem letter should be saved by the submitter for possible future reference.

7.4 DSL Report Form B Problem Responses

Form B problem letters cite the appropriate Form Number. (Line 1 is the only line on Form B.)

Because of the potential complexity of Form B substance descriptions, these problem letters may describe more than one problem. The problem statements should be examined in conjunction with the **Submitting Company Copy** of the original Form B. Chapters III and IV should be reviewed as necessary.

The **Form Number** of the original form cited in the problem letter should be recorded in the **Replacing Form** block of the new form. Only one **Form Number** should be listed under **Replacing Form**. Responses to problems from different forms should not be combined on one replacement form.

In the event that two or more Report Forms were used to submit information which should have been included on a single form, the original **Form Numbers** should be listed in the **Substance Description** area of BLOCK V.

Some unusual problems may require the submitter to prepare two or more new forms to replace the original form.

A copy of the problem letter and any descriptive attachments should be firmly affixed to the replacement form(s). The **Submitting Company Copy** of the replacement form(s) and a copy of all attachments should be retained by the submitter for future reference.

Environment Canada should be contacted if further assistance is required.

Appendices

Appendix I

Definitions

Alloy

A mixture with metallic properties of which at least one component is a metal.

Article

Any manufactured item that is formed into a specific physical shape or design during manufacture and has, for its final use, a function or functions dependent in whole or in part on its shape or design.

By-product

A substance produced without separate commercial intent during the manufacture of another substance.

CA Index Name

A name assigned by CAS to a chemical substance by application of a rigorous set of nomenclature rules. These rules provide names which are as descriptive as possible of the precise molecular structure and serve to bring the names of structurally related substances together in an alphabetical listing or index.

CAS

Chemical Abstracts Service.

CAS Preferred Name

A name assigned by CAS to UVCB substances for which the CAS Registry Number is not currently included in CAS abstracting and indexing services. These names describe such substances as completely as possible and are generally assigned in accordance with standard CAS indexing practices, using CAS controlled CA indexing terminology. Abbreviations are used in these names, e.g. alc. for alcohol, Bu for butyl, derivs. for derivatives, distn. for distillation, Me for methyl.

Canadian Environmental Protection Act

An Act of Canada respecting the protection of the environment and human life and health.

CAS Registry Number

A unique identifying number assigned by CAS to each chemical substance included in the computer-based CAS Chemical Registry System. CAS Registry Numbers have no chemical significance in themselves and are assigned in sequential order as new substances are entered into the CAS Chemical Registry System. Each CAS Registry Number designates only one chemical substance in terms of atoms, valence bonds, and stereochemistry, insofar as that substance has been elucidated and defined. An asterisk after the CAS Registry Number indicates that it is not currently used in CAS abstract or index publications.

CAS Synonym

A substance name, other than a CA Index Name or CAS Preferred Name, included in the CAS Registry System Nomenclature File. These names have come from the original scientific and technical literature or, in some cases, from reference works. The equation of a trade name or trade mark with a specific substance is based on information in the literature and not, as a general rule, on information supplied by the manufacturer.

CEPA

An acronym for the **Canadian Environmental Protection Act**

Colour Index

A reference publication for manufacturers and users of dyes published by the Society of Dyers and Colourists with assistance from the American Association of Textile Chemists and Colorists.

Core Domestic Substances List (Core DSL)

A preliminary version of the DSL, to be published in August 1989, based on nominations received from the approximately 200 companies invited to participate in Phase I reporting.

Domestic Substances List

A list of all substances that were, between January 1, 1984 and December 31, 1986 (a) manufactured in or imported into Canada by any person in a quantity of not less that 100 kg in any one calendar year; or (b) in Canadian commerce or used for commercial manufacturing purposes in Canada.

Domestic Substances List Report Forms (DSL Report Forms)

Official Environment Canada supplied forms to be used by individuals and companies wishing to nominate substances that were, between January 1, 1984 and December 31, 1986, (a) manufactured in or imported into Canada in a quantity of not less than 100 kg in any one calendar year; or (b) in Canadian commerce or used for commercial manufacturing purposes in Canada.

DSL

An acronym for **Domestic Substances List**

Final Domestic Substances List (Final DSL)

The DSL as required by CEPA subsection 25(4), to be published in Canada Gazette II in 1990.

Form A

The DSL Report Form to be used in nominating a substance, for inclusion in the Domestic Substances List, which has a CAS Registry Number and an identity which is not to be claimed confidential.

Form B

The DSL Report Form to be used in nominating a substance, for inclusion in the Domestic Substances List, for which a CAS Registry Number has not been assigned, or the identity is unknown, or the substance identity is to be claimed confidential.

Form Number

A pre-printed computer-checkable document identification number assigned to each DSL Report Form. This number appears in the upper left corner of each form.

Importer

An individual or company clearing goods in Canada directly from a foreign supplier or through a customs broker acting on behalf of the individual or company. The importer will be the owner of the goods after they have cleared customs.

Impurity

A substance which is not intentionally present with another substance.

In Commerce

For DSL reporting purposes, the purchase or sale of a substance in the Canadian marketplace by an individual or company or the use of a substance for manufacturing purposes in Canada. This includes the use of a substance as a raw material for the production of an article or as a constituent of a chemical formulation. Activities not considered *"In Commerce"* include transportation, storage, use as an analytical reagent and research and development.

Index Heading Parent

That portion of a CA Index Name that provides the primary access point in the alphabetical index listing. It identifies the principal functional group (if one is present) and the basic molecular skeleton to which it is attached. For example, *"Benzoic acid"* is the index heading parent for the substance having the complete CA Index Name *"Benzoic acid, 2-hydroxy-, 2-ethylhexyl ester"*.

Inverted Name

A substance name which has been divided into chemically significant segments and reordered for the purpose of highlighting the most significant features, and for grouping closely related substances in an alphabetical listing. For example, the inverted form of the substance name *"ethyl 3-bromopropanoate" is "Propanoic acid, 3-bromo-, ethyl ester"*.

Line Number

A one or two digit number that identifies each line and thereby, in conjunction with the Form Number, each substance reported on the DSL Report Form.

Locant

Numerals or Greek or Roman letters used in a substance name to designate the positions of unsaturated bonds or attachments of chemical groups in a molecule.

Manufacturer

The individual or company having ownership of a substance at the time of its creation.

Masked Name

A name based on a CA Index Name, but having one or more of the specific components identified in a manner which prevents the identification of the specific chemical structure.

Molecular Formula

A linear notation which identifies the kind and number of atoms in a molecule of a compound. For example, C_6H_6 is the molecular formula for benzene. The element symbols are arranged according to the Hill System. Carbon (C) is cited first followed by hydrogen (H), if present, then the remaining symbols are ordered alphabetically. The order of the symbols is strictly alphabetical if a compound does not contain carbon.

Naturally Occurring Substance

A substance which occurs in nature as such, which is chemically unprocessed, or which is extracted from air by any means, or physically processed only by manual, mechanical or gravitational means, by dissolution in water, by flotation, or by heating solely to remove water.

Non-Reportable Substance

A substance which is excluded from reporting by the criteria rules given in Chapter III.

Nominate

To provide information, using the appropriate DSL Report Form, for the purposes of including a substance on the DSL.

Nominator

The individual or company providing information on the DSL Report Form.

Poorly-Defined Substance

A substance which cannot be represented by a complete chemical structure diagram and specific molecular formula. Substances of this type are typically substances of Unknown or Variable composition, Complex reaction products, or Biological materials (UVCB's).

Problem Letter

A written query from Environment Canada requesting information from a submitter to complete and/or clarify data contained on a DSL Report Form or to inform the submitter that the substance should not have been reported. Each problem letter refers to a specific DSL Report Form identified by its Form Number.

Provisional Domestic Substances List (Provisional DSL)

An interim version of the DSL which includes the Core DSL and substances reported during Phase II which satisfies the statutory criteria. The Provisional DSL will be published in April 1990 and notice of its availability will be made in Canada Gazette I.

Site-Limited Substance

A substance manufactured within a particular plant site and not distributed, either unaltered or in any mixture or article, for commercial purposes outside that site.

Submit

See Nominate.

Submitter

See Nominator.

Substance

As defined in CEPA. (Refer to Appendix V)

Toxic Substances Control Act

A public law (94-469) of the United States of America.

Trademark

A symbol, design, word, letter, etc. used by a manufacturer or dealer to distinguish a product or products from those of competitors, and usually registered and protected by law.

Trade Name

The name by which a commodity or substance is commonly known in trade. A trade name is not necessarily a trade mark. Although trade names represent single chemical entities or mixtures of reproducible composition and properties, they are usually not chemically descriptive.

TSCA

An acronym for Toxic Substances Control Act.

1985 TSCA Inventory

An inventory of over 58,000 chemical substances manufactured, imported or processed in the United States of America for commercial purposes, compiled in 1985 for the TSCA.

Trivial Name

A common or vernacular substance name, as distinct from a systematically derived, chemically descriptive substance name.

UVCB

An acronym for substances of Unknown or Variable composition, Complex reaction products, or Biological material.

Well-Defined Substance

A substance which can be represented by a complete chemical structure diagram and specific molecular formula. Although locants may be unknown or variable, the number of substituents and/or modifications, e.g. degree of esterification, is known.

Appendix II

Special Categories

Special categories have been established for The Domestic Substances List covering all of the component substances intentionally produced in certain common commercial reaction mixtures. These categories are included on both TSCA and EINECS and should facilitate reporting by Canadian industry. Submitters using these categories must ensure their particular application is consistent with the category definition. These categories of substances with the corresponding CA Index Name, CAS Registry Number and supporting definition are listed below:

1. Glass, oxide, chemicals (65997-17-3*)

Definition:

This category encompasses the various chemical substances manufactured in the production of inorganic glasses. For purposes of this category, "glass" is defined as an amorphous, inorganic, transparent, translucent or opaque material traditionally formed by fusion of sources of silica with a flux, such as an alkali-metal carbonate, boron oxide, etc. and a stabilizer, into a mass which is cooled to a rigid condition without crystallization in the case of transparent or liquid-phase separated glass or with controlled crystallization in the case of glass-ceramics.

The category consists of the various chemical substances, other than by-products or impurities, which are formed during the production of various glasses and concurrently incorporated into a glass mixture. All glasses contain one or more of these substances, but few, if any, contain all of them. The elements listed below are principally present as components of oxide systems but some may also be present as halides or chalcogenides, in multiple oxidation states, or in more complex compounds. Trace amounts of other oxides or chemical compounds may be present. Oxides of the first seven elements listed* comprise more than 95 percent, by weight, of the glass produced.

Aluminum*	Chromium	Nitrogen
Boron*	Cobalt	Phosphorous
Calcium*	Copper	Praseodymium
Magnesium*	Germanium	Rubidium
Potassium*	Gold	Selenium
Silicon*	Holmium	Silver
Sodium*	Iron	Strontium
Antimony	Lanthanum	Sulfur
Arsenic	Lead	Tellurium
Barium	Lithium	Tin
Bismuth	Manganese	Titanium
Cadmium	Molybdenum	Tungsten
Carbon	Neodymium	Uranium
Cerium	Nickel	Vanadium
Cesium	Niobium	Zinc
		Zirconium

2. Frits, chemicals (65997-18-4*)

Definition:

Frit is a mixture of inorganic chemical substances produced by rapidly quenching a molten, complex combination of materials, confining the chemical substances thus manufactured as nonmigratory components of glassy solid flakes or granules. This category includes all of the chemical substances specified below when they are intentionally manufactured in the production of frit. The primary members of this category are oxides of some or all of the elements listed below. Fluorides of these elements may also be included in combination with these primary substances.

Aluminum	Chromium	Manganese	Sodium
Antimony	Cobalt	Molybdenum	Strontium
Arsenic	Copper	Neodymium	Tin
Barium	Gold	Nickel	Titanium
Bismuth	Iron	Niobium	Tungsten
Boron	Lanthanum	Phosphorus	Vanadium
Cadmium	Lead	Potassium	Zinc
Calcium	Lithium	Silicon	Zirconium
Cerium	Magnesium	Silver	

3. Ceramic materials and wares, chemicals (66402-68-4*)

Definition:

This category encompasses the various chemical substances manufactured in the production of ceramics. For purposes of this category, a ceramic is defined as a crystalline or partially crystalline, inorganic, non-metallic, usually opaque substance consisting principally of combinations of inorganic oxides of aluminum, calcium, chromium, iron, magnesium, silicon, titanium, or zirconium which conventionally is formed first by fusion or sintering at very high temperatures, then by cooling, generally resulting in a rigid, brittle monophase or multiphase structure. (Those ceramics which are produced by heating inorganic glass, thereby changing its physical structure from amorphous to crystalline but not its chemical identity are not included in this definition.) This category consists of chemical substances other than by-products or impurities which are formed during the production of various ceramics and concurrently incorporated into a ceramic mixture. Its composition may contain any one or a combination of these substances. Trace amounts of oxides and other substances may be present. The following representative elements are principally present as oxides but may also be present as borides, carbides, chlorides, fluorides, nitrides, silicides, or sulfides in multiple oxidation states, or in more complex compounds.

Aluminum	Cobalt	Sodium
Barium	Copper	Thorium
Beryllium	Hafnium	Tin
Boron	Iron	Titanium
Cadmium	Lithium	Uranium
Calcium	Magnesium	Yttrium
Carbon	Manganese	Zinc
Cerium	Phosphorus	Zirconium
Cesium	Potassium	
Chromium	Silicon	

4. Steel manufacture, chemicals (65997-19-5*)

Definition:

This category includes the chemical substances which are manufactured as part of steel and alloy steels. The following list identifies those elements which may exist in steel or which may comprise compounds present in steel or alloy steels. Aluminum, beryllium, boron, calcium, carbon, cerium, chromium, cobalt, copper, hafnium, iron, lanthanum, lead, magnesium, manganese, molybdenum, nickel, niobium, nitrogen, oxygen, phosphorus, selenium, silicon, sulfur, tantalum, tin, titanium, tungsten, vanadium, yttrium, zinc, zirconium.

5. Cement, alumina, chemicals (65997-16-2*)

Definition:

High-Alumina cement is a mixture of chemical substances produced by burning or sintering at high temperature (greater than 1200°C) raw materials which are predominantly calcium carbonate, aluminum oxide, silica, and iron oxide. The chemical substances which are manufactured are confined in a crystalline mass. This category includes all of the chemical substances specified below when they are intentionally manufactured in the production of high-alumina cement. The primary members of this category are $CaAl_2O_4$, $Ca_4Al_2FeO_{10}$, $Ca_{12}Al_{14}O_{33}$, and Ca_2SiO_4. Other compounds listed below may also be included in the combination with these primary substances.

$CaAl_4O_7$	$Ca_2Al_2SiO_7$
$CaAl_{12}O_{19}$	$Ca_4Al_6SO_{16}$
$Ca_3Al_2O_6$	$Ca_{12}Al_{14}Cl_2O_{32}$
CaO	$Ca_{12}Al_{14}F_2O_{32}$
Ca_3SiO_5	$Ca_6Al_4Fe_2O_{15}$
$Ca_2Fe_2O_5$	

6. Cement, portland, chemicals (65997-15-1*)

Definition:

Portland cement is a mixture of chemical substances produced by burning or sintering at high temperatures (greater than 1200°C) raw materials which are predominantly calcium carbonate, aluminum oxide, silica, and iron oxide. The chemical substances which are manufactured are confined in a crystalline mass. This category includes all of the chemical substances specified below when they are intentionally manufactured in the production of Portland cement. The primary members of the category are Ca_2SiO_4 and Ca_3SiO_5. Other compounds listed below may also be included in combination with these primary substances.

$CaAl_2O_4$	$Ca_2Al_2SiO_7$
$CaAl_4O_7$	$Ca_4Al_6SO_{16}$
$CaAl_{12}O_{19}$	$Ca_{12}Al_{14}Cl_2O_{32}$
$Ca_3Al_2O_6$	$Ca_{12}Al_{14}F_2O_{32}$
$Ca_{12}Al_{14}O_{33}$	$Ca_4Al_2Fe_2O_{10}$
CaO	$Ca_6Al_4FeO_{15}$
$Ca_2Fe_2O_5$	

Appendix III

Masking of Substance Names

The procedures presented below are based on guidelines developed by the U.S. EPA for purposes of the TSCA Inventory. They have been modified for Canadian use and are included in this document to provide guidance to nominators of substances to the Domestic Substances List wishing to claim specific identities as confidential and, consequently, required to submit a masked name for publication purposes. The intent of the guidelines is to mask selected parts of a specific substance name in order to disguise to the extent necessary, the full identity of the substance. Although the guidelines illustrate the masking of a single structural feature, multiple masking is permitted if the submitter can justify the need.

There are inherent differences in naming substances with a definite chemical structure and those which cannot be depicted by a structural diagram and each of these possibilities is addressed separately.

Substances Having a Definite Chemical Structure

Substances having a definite chemical structure, can be represented by an unique structure diagram. For reporting purposes, a substance of this type is identified by three items of information on Form B: 1) a specific chemical name (for consistency Environment Canada will accept only a Chemical Abstracts Index Name), 2) a molecular formula and 3) a chemical structure diagram. The specific name, however, is so precisely descriptive of the exact substance identity that the other two items of information can be easily generated.

The names of substances with a distinct chemical identity normally disclose the following structural information:

a) Identity of parent structure (i.e., a chain of carbon atoms, a ring system, or a coordinated metal).

b) Identity, number and position of chemical group(s) which are attached to the parent structure(s) or to other chemical groups.

c) Identity and number of counter ions (for salts).

d) Stereochemical relationships.

Masked names may be created for substances with a distinct chemical identity by disguising structurally descriptive segments of the specific chemical name. Masking may be accomplished by substituting non-descriptive terms for distinctive parts of the name. Proposed masked names created by eliminating stereochemical indicators (if appropriate) from the specific chemical name and by masking one other structure detail, as described below, will, in most cases, be acceptable to Environment Canada for inclusion in the **Substances with a Confidential Identity** portion of the DSL.

The structurally descriptive parts of a chemical name that could be masked when creating a proposed name are:

1. A locant which specifies the placement of a single chemical group.

2. Locant and multiplicative prefixes (e.g., di-, tri-, tetra-) which together specify the number and placement of a given chemical group.

3. Identity (but not placement and number) of a given chemical group.

4. Identity of a given parent structure, and locants of a substituent chemical group.

5. Identity and multiplicative prefixes (specifying the number) of a given simple cation or anion of a salt.

Table 5 lists by name and molecular formula the type of chemical groups which can be masked. The groups of atoms found in Table 5 are common structural units; a given group may be listed under more than one name. Each group includes at least one atom other than carbon or hydrogen.

A chemical group which includes a carbon atom having more than one single free valence (e.g. carbonyl -CO-) cannot be masked if the carbon is directly attached to an acyclic carbon atom or is included within a ring system; in this circumstance, only the atom or group of atoms attached to the carbon atom can be masked. (See Example 2, where the oxo group is masked).

Certain Chemical groups in Table 5 include hydrogen atoms which are often additionally substituted, e.g., an ethyl group may be substituted for a hydrogen of the sulfamyl group (H_2NSO_2-) to give $C_2H_5NHSO_2$-. If additionally substituted, **only** the chemical group listed in Table 5 should be masked, **not** the substituent.

Table 5 lists most of the common chemical functional groups which contain oxygen, e.g., H_2NCO-. While not always listed, the Group VIa element (sulfur, selenium, and tellurium) analogs of these functional groups, e.g., H_2NCSe-, are considered included within Table 5 and, accordingly, may be used in masking.

TABLE 5 - List of Common Chemical Structural Units

aldo O=
amidino $H_2NC(=NH)-$
amino H_2N-
(aminoamidino) $H_2NC(=NNH_2)-$ or $H_2NNHC(=NH)-$
(aminocarbonyl) H_2NCO-
[(aminocarbonyl)amino] $H_2NCONH-$
[2-(aminocarbonyl)hydrazino] $H_2NCONHNH-$
[(aminocarbonyl)hydrazono] $H_2NCONHN=$
(aminohydrazonomethyl) $H_2NC(=NNH_2)-$
[(aminohydroxymethylene)hydrazino] $H_2NC(OH)=NNH-$
(aminoiminomethyl) $H_2NC(=NH)-$
(aminoiminophosphoranyl) $H_2NPH(=NH)-$
(P-aminophosphinimyl) $H_2NPH(=NH)-$
(aminosulfinyl) H_2NSO-
(aminosulfonyl) H_2NSO_2-
(aminothio) H_2NS-
(aminothioxomethyl) H_2NCS-
ammonio $H_3N^{+}-$
antimono -Sb=Sb-
arseno -As=As-
arsenoso OAs-
arsinico $HOAs(O)\equiv$
arsinidene AsH=
arsinidyne As≡
arsinimyl $AsH_2(=NH)-$
arsino AsH_2-
arsinothioyl $AsH_2(S)-$
arsinyl $AsH_2(O)-$
arsinylidene $AsH(O)\equiv$
arso O_2As-
arsono $(HO)_2As(O)-$
(arsonooxy) $(HO)_2As(O)O-$
arsononitridyl $AsH(=N)-$
arsoranyl AsH_4-
arsoranylidyne $AsH_2\equiv$
arsylene AsH=
arsylidyne As≡
astato At-
astatoxy O_2At-
astatyl 0_2At-
azi -N=N-
azido N_3-
(azidocarbonyl) N_3C0-
(azidoformyl) N_3CO-
(azidosulfonyl) N_3SO_2-
azino =NN=
azo -N=N-
azoxy -N(O)=N-

bismuthino BiH_2-
bismuthylene BiH=
bismuthylidyne Bi≡

TABLE 5 (Cont.)

borono $(HO)_2B-$
(boronooxy) $(HO)_2BO-$
boryl BH_2-
borylene BH=
borylidyne B≡
bromo Br-
(bromocarbonyl) BrCO-
(bromoiminomethyl) BrC(=NH)-
(bromosulfonyl) $BrSO_2-$

carbamido $H_2NCONH-$
carbamoyl H_2NCO-
carbamyl H_2NCO-
carbonimidoyl -C(=NH)-
(carbonimidoylamino) $H_2N=C=N-$
carbonothioyl -CS-
carbonyl -CO-
(carbonylidiimino) -NHCONH-
(carbonyldioxy) -OC(O)O-
carboxy HO_2C-
chloro Cl-
(chlorocarbonyl) ClCO-
(chloroformyl) ClCO-
(chloroiminomethyl) ClC(=NH)-
(chlorosulfinyl) ClSO-
(chlorosulfonyl) $ClSO_2-$
chlorosyl OCl-
(chlorothio) ClS-
chloryl O_2Cl-
cyanato NCO-
cyano NC-

1,2-diarsenediyl -As=As-
diarsenyl HAs=As-
diarsinetetrayl =AsAs=
diarsinyl $H_2AsAsH-$
1,2-diazenediyl -N=N-
diazeno HN=N-
diazo $N_2=$
diazoamino -NHN=N-
diazonio N_2^+-
1,2-diborane(4)diylidene =BB=
diborane(4)tetrayl =BB=
digermanylene $-GeH_2GeH_2-$
digermathianyl $H_3GeSGeH_2-$
dioxy -OO-
1,2-diphosphenediyl -P=P-
1,2-diphosphinediyl -PHPH-
1,2-diphosphinediylidene =PP=
diphosphinetetrayl =PP=
diphosphinyl H_2PPH-

TABLE 5 (Cont.)

diseleno -SeSe-
1,2-disilanediyl $-SiH_2SiH_2-$
disilanoxy H_3SiSiH_2O-
disilanyl H_3SiSiH_2-
disilanylene $-SiH_2SiH_2-$
(disilanyloxy) H_3SiSiH_2O-
(disilathianyloxy) $H_3SiSSiH_2O-$
disilazanoxy $H_3SiNHSiH_2O-$
disilazanyl $H_3SiNHSiH_2-$
2-disilazanyl $(H_3Si)_2N-$
(disilazanyloxy) $H_3SiNHSiH_2O-$
1,3-disiloxanediyl $-SiH_2OSiH_2-$
1,3-disiloxanediylidene =SiHOSiH=
disiloxanoxy $H_3SiOSiH_2O-$
disiloxanylene $-SiH_2OSiH_2-$
(disiloxanyloxy) $H_3SiOSiH_2O-$
disilthianoxy $H_3SiSSiH_2O-$
1,2-distannanediyl $-SnH_2SnH_2$
distannanylene $-SnH_2SnH_2-$
1,3-distannathianediylidene =SnHSSnH=
1,2-distibenediyl -Sb=Sb-
disulfinyl -S(O)S(O)-
dithio -SS-
(dithiocarboxy) HSCS-
(dithiohydroperoxy) HSS-

epidioxy -OO-
epidiseleno -SeSe-
epidithio -SS-
epioxy -O-
episeleno -Se-
epithio -S-
epoxy -O-

fluoro F-
(fluorocarbonyl) FCO-
fluoryl O_2F-
formamido HCONH-
1,5-formazanidyl -N=NCH=NNH-
1-formazano $H_2NN=CHN=N-$
5-formazano HN=NCH=NNH-
formazanyl $HN=NC(=NNH_2)-$
formimidoyl HC(=NH)-
formyl HCO-
(formylamino) HCONH-

germanetetrayl =Ge=
germyl H_3Ge-
germylene $H_2Ge=$
germylidyne HGe≡
guanyl $H_2NC(=NH)-$

TABLE 5 (Cont.)

hydrazi -NHNH-
1,2-hydrazinediylidene =NN=
hydrazino H_2NNH-
(hydrazinocarbonyl) H_2NNHCO-
(hydrazinoiminomethyl) $H_2NNHC(=NH)$-
(hydrazinosulfinyl) H_2NNHSO-
(hydrazinosulfonyl) H_2NNHSO_2-
(hydrazinothioxomethyl) H_2NNHCS-
1-hydrazinyl-2-ylidene -NHN=
hydrazo -NHNH-
hydrazono H_2NN=
hydroperoxy HOO-
(hydroperoxycarbonyl) HOOCO-
(hydroperoxyiminomethyl HOOC(=NH)-
(hydroperoxysulfinyl) HOOS(=O)-
(hydroperoxysulfonyl) $HOOS(=O)_2$-
(hydroperoxythioxomethyl) HOOCS-
hydroxy HO-
(hydroxyamino) HONH-
(hydroxyimino) HON=
(hydroxyiminomethyl) HOC(=NH)-
hydroxyl HO-
(hydroxyphosphinyl) HOPH(O)-

imidocarbonyl -C(=NH)-
(imidocarbonylamino) HN=C=N-
imino HN=
(iminomerrcaptomethyl) HSC(=NH)-
[imino(mercaptooxy)methyl] HSOC(=NH)-
(iminomethyl) HN=CH-
(iminonitrilo) -NHN=
(iminophosphoranyl) $H_2P(=NH)$-
(iminosulfenomethyl) HOSC(=NH)-
iodo I-
(iodocarbonyl) ICO-
iodosyl OI-
iodyl O_2I-
isocyanato OCN-
(isocyanatocarbonyl) OCNCO-
(isocyanatosulfonyl) $OCNSO_2$-
isocyano CN-
(isocyanocarbonyl) CNCO-
isonitro HON(O)=
isonitroso HON=
isosemicarbazido $H_2NC(OH)=NNH$-
isothiocyanato SCN-
(isothiocyanatocarbonyl) SCNCO-
(isothiocyanatosulfonyl) $SCNSO_2$-
isothiocyano SCN-

TABLE 5 (Cont.)

keto O=

mercapto HS-
(mercaptoamino) HSNH-
(mercaptooxy) HSO-
[(mercaptooxy)carbonyl] HSOCO-
[(mercaptooxy)sulfinyl] HSOS(=O)-
[(mercaptooxy)sulfonyl] $HSOS(=O)_2$-
[(mercaptooxy)thioxomethyl] HSOCS-
(mercaptotelluro) HSTe-

nitramino O2NNH-
aci-nitramino HON(O)=N-
nitrilio $HN^+\equiv$
nitrilo N≡
(nitrilophosphoranyl) HP(=N)-
nitro O_2N-
aci-nitro HON(O)=
(nitroamino) O_2NNH-
(aci-nitroamino) HON(O)=N-
(nitrooxy) O_2NO-
nitroso ON-
(nitrosoamino) ONNH-
(nitrosoimino) ONN=
(nitrosooxy) ONO-
(nitrothio) O_2NS-

oximido HON=
oxo O=
(oxoboryl) OB-
oxy -O-

1,3-pentazadienyl $H_2NN=NN=N$-
perchloryl O_3Cl-
perseleno Se=Se=
perthio S=S=
phosphinico HOP(O)=
phosphinidene HO=
phosphinidyne P≡
phosphinimyl $H_2P(=NH)$-
phosphino H_2P-
phosphinothioyl $H_2P(S)$-
phosphinothioylidene HP(S)=
phospinyl $H_2P(O)$-
phosphinylidene HP(O)=
phosphinylidyne P(O)≡
phospho O_2P-
phosphono $(HO)_2P(O)$-
(phosphonocarbonyl) $(HO)_2P(CO)$
phosphononitridyl HP(=N)-
(phosphonooxy) $(HO)_2P(O)O$-
phosphoranyl H_4P-

TABLE 5 (Cont.)

phosphoranylidene $H_3P=$
phosphoranylidyne $H_2P\equiv$

phosphoro -P=P-
phosphoroso OP-
plumbanetetrayl =Pb=
plumbyl H_3Pb-
plumbylene H_2Pb=
plumbylidyne $HPb\equiv$
seleneno HOSe-
selenino HOSe(O)-
seleninoselenoyl Se=Se=
seleninyl OSe=
seleno -Se-
selenocyanato NCSe-
selenono $(HO)SeO_2$-
selenonyl O_2Se=
selenoxo Se=
selenocyanato NCSe-
selenono $(HO)SeO_2$-
selenonyl O_2Se=
selenoxo Se=
selenyl HSe-
semicarbazido $H_2NCONHNH$-
semicarbazono $H_2NCONHN$=
silanetetrayl =Si=
silyl H_3Si-
silylene H_2Si=
silylidyne $HSi\equiv$
(silyloxy) H_3SiO-
stannanetetrayl =Sn=
stannono HOSn(O)-
stannyl H_3Sn-
stannylene H_2Sn=
stannylidyne $HSn\equiv$
stibinico HOSb(O)=
stibino H_2Sb-
stibo O_2Sb-
stibono $(HO)_2Sb(O)$-
(stibonooxy) $(HO)_2Sb(O)O$-
stiboso OSb-
stibyl H_2Sb-
stibylene HSb=
stibylidyne Sb≡
sulfamino $HOSO_2NH$-
sulfamoyl H_2NSO_2-
sulfamyl H_2NSO_2-
sulfeno HOS-
(sulfenocarbonyl) HOSCO-
(sulfenosulfinyl) HOSS(=O)-
(sulfenosulfonyl) $HOSS(=O)_2$-

TABLE 5 (Cont.)

(sulfenothioxomethyl) HOSCS-
sulfhydryl HS-
sulfinimidoyl HN=S=
sulfino HOS(O)
(sulfinooxy) HOS(O)O-
sulfinothioyl S=S=
sulfinyl OS=
sulfo HO_3S-
(sulfoamino) $HOSO_2NH$-
sulfonimidoyl HN=S(O)=
sulfonodiimidoyl $(HN=)_2S$=
sulfonyl $-SO_2-$
(sulfooxy) HO_3SO-
sulfuryl $-SO_2-$

telluro -Te-
telluroxo Te=
telluryl HTe-
1,4-tetraphosphinediyl $-(PH)_4-$
1,7-tetrasiloxanediyl $-SiH_2(OSiH_2)_2OSiH_2-$
tetrathio -SSSS-
1,4-tetrazanediyl $-(NH)_4-$
1,4-tetrazanediylidene $=N(NH)_2N=$
1-tetrazenyl $H_2NNHN=N-$
thio -S-
(thioarsenoso) S=As-
(thiocarbamoyl) H_2NCS-
thiocarbamyl H_2NCS-
(thiocarbonyl) -CS-
(thiocarboxy) HOSC-
thiocyanato NCS-
thiocyano NCS-
(thioformyl) HCS-
thiohydroperoxy HOS- or HSO-
(thiohydroxy) HS-
(thionitroso) SN-
thionyl -SO-
(thioseleneno) HSSe-
(thiosulfeno) HSS-
(thiosulfo) $(HO_2S_2)-$
thioxo S=
(thioxoarsino) S=As-
(thioxomethyl) HCS-
thiuram H_2NCS-
triazanyl $H_2NNHNH-$
1-triazene-1,3-diyl -NHN=N-
1-triazenyl H2NN=N-
triseleno -SeSeSe-
1,3-trisilanediyl $-(SiH_2)_3-$
1,3,5-trisiloxanetriyl $-SiH(OSiH_2-)_2$
trithio -SSS-

uramino $H_2NCONH-$
ureido $H_2NCONH-$
ureylene -NHCONH-

Parent Masking

A parent structure which is a chain of carbon atoms or a ring system may be masked in the chemical name only by the following masked terms:

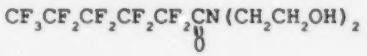
alkyl **or** alkane
alkenyl **or** alkene
alkynyl **or** alkyne

carbomonocyclic **or** carbomonocycle (e.g., benzene, cyclopentane)
carbopolycyclic **or** carbopolycycle (e.g., naphthalene, spiroundecane)
heteromonocyclic **or** heteromonocycle (e.g., pyrrole, p-dioxane)
heteropolycyclic **or** heteropolycycle (e.g., indole, benzothiazole)
In the case of a coordinated metal compound, the identity of the metal atom may be masked by the term "metal" in the chemical name.

Only one such parent group or multiple occurences of the **same** parent group should be masked.

The following examples show how several hypothetical compounds could be identified by names which mask only **one** structural detail (other than stereochemistry).

EXAMPLE 1



FULLY DEFINED NAME:

2,2,3,3,4,4,5,5,6,6,6-undecafluoro-**N**,**N**-bis(2-hydroxy-ethyl)hexanamide

ACCEPTABLE MASKED NAMES:

fluorine atoms masked:

N,**N**-bis(2-hydroxyethyl)-2,2,3,3,4,4,5,5,6,6,6-undecahalosubstituted hexanamide

number of fluorine atoms masked:

polyfluoro-**N**,**N**-bis(2-hydroxyethyl)hexanamide

hydroxyl groups masked:

2,2,3,3,4,4,5,5,6,6,6-undecafluoro-**N**,**N**-bis(2-substituted ethyl)hexanamide

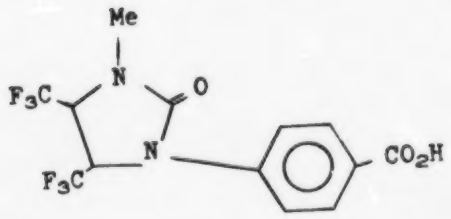
hexane parent (plus locants) masked:

undecafluoro-**N**,**N**-bis(2-hydroxyethyl)alkanamide

amide group (plus nitrogen locants) masked:

2,2,3,3,4,4,5,5,6,6,6-undecafluorobis(2-hydroxyethyl)hexane derivative

EXAMPLE 2



FULLY DEFINED NAME:

4-(3-methyl-2-oxo-4,5-bis(trifluoromethyl)-1-imidazolidinyl)benzoic acid

ACCEPTABLE MASKED NAMES:

oxo group masked:

4-(3-methyl-2-substituted-4,5-bis(trifluoromethyl)-1-imidazolidinyl) benzoic acid

(NOTE: Only the oxo and not the carbonyl group has been masked.)

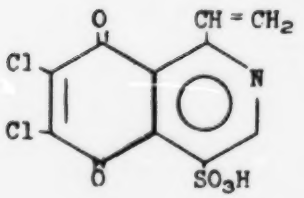
fluorine atoms masked:

4-(3-methyl-2-oxo-4,5-bis(trihalosubstituted methyl)-1-imidazolidinyl) benzoic acid

imidazolidine ring (plus locants) masked:

4-[methyloxobis(trifluoromethyl)heteromonocycle]benzoic acid

EXAMPLE 3



FULLY DEFINED NAME:

6,7-dichloro-1-ethenyl-5,8-dihydro-5,8-dioxo-4-isoquinolinesulfonic acid

ACCEPTABLE MASKED NAMES:

chlorine atoms masked:

1-ethenyl-5,8-dihydro-5,8-dioxo-6,7-dihalosubstituted-4-isoquinolinesulfonic acid

vinyl group masked:

1-alkenyl-6,7-dichloro-5,8-dihydro-5,8-dioxo-4-isoquinolinesulfonic acid

oxo group masked:

6,7-dichloro-1-ethenyl-5,8-dihydro-5,8-dihalosubstituted-4-isoquinoline sulfonic acid

sulfo group masked:

6,7-dichloro-1-ethenyl-5,8-dihydro-5,8-dioxo-4-substituted isoquinoline

isoquinoline ring (plus locants) masked:

dichloroethenyldihydrodioxo heteropolycyclic sulfonic acid or
dichloroethenyldihydrodioxosulfo heteropolycycle

Substances Not Having A Definite Chemical Structure

Some substances can only be represented by partial or incomplete chemical structures; in other instances the composition can only be described in terms of a complex combination of several different known or unknown components.

The method of manufacture can also serve to identify a substance. For a substance manufactured by a chemical reaction, identification can be stated in terms of the immediate precursor substances and other reactants which participate in the final reaction sequence used to manufacture the substance, and the nature of the reaction, e.g. ethoxylation or bromination. For a substance derived from a source without chemical reaction, processing information identifies the source and method of derivation, e.g. distillation, or extraction with methylene chloride.

While the name of substances lacking a definite chemical structure may be based on variable types of information, the procedures similar to those used for substances with a definite chemical structure may be applicable.

The composition of a substance which can be represented by a partial or incomplete chemical structure diagram can generally be described by a common chemical name which encompasses the variability or incompleteness in the structure. A masked name for such a substance will usually be acceptable if the previous guidelines for substances with a definite chemical structure have been followed.

In other instances, the preferred name may identify a predominant component or components of its composition, an immediate precursor or precursors, and other reactants by specific chemical name. A proposed masked name will usually be acceptable for such a substance if it is constructed by masking the chemical name of **one** such component, precursor, or reactant.

Clearly, these guideline procedures are most useful for masking the identity of substances having a distinct chemical identity, and will only be useful for some types of substances which can not be described with a chemical structure. In some of these latter cases the guidelines provided may have little applicability. For consistency, submitters must base their choice of a masked name on a CAS Preferred Name. Environment Canada will consider each such proposed masked name on a case-by-case basis.

EXAMPLE 4

SUBSTANCE DESCRIPTION:

Linseed-oil fatty acids-fumaric acid-glycerol-maleic anhydride polymer

SPECIFIC CHEMICAL NAME:

Fatty acids, linseed-oil, polymers with fumaric acid, glycerol and maleic anhydride

ACCEPTABLE MASKED NAMES:

linseed-oil masked:

Fatty acids, polymers with fumaric acid, glycerol and maleic anhydride

fumaric acid masked:

Fatty acids, linseed-oil, polymers with alkenedioic acid, glycerol and maleic anhydride

EXAMPLE 5

SUBSTANCE DESCRIPTION:

Reaction product of 1,8-dihydroxy-4,5-dinitro-9,10-anthracenedione with aniline and 2-chloroethanol

SPECIFIC CHEMICAL NAME:

1,8-dihydroxy-4,5-dinitro-9,10-anthracenedione reaction products with aniline and 2-chloroethanol

ACCEPTABLE MASKED NAMES:

hydroxyl groups masked:

1,8-disubstituted-4,5-dinitro-9,10-anthracenedione reaction products with aniline and 2-chloroethanol

anthracene parent (plus locants) masked:

dihydroxydinitrodioxopolycycle reaction products with aniline and 2-chloroethanol

chlorine atom masked:

1,8-dihydroxy-4,5-dinitro-9,10-anthracenedione reaction products with aniline and 2-halosubstituted ethanol

EXAMPLE 6

SUBSTANCE DESCRIPTION:

Polyethylene glycol, mono-C_{12-15}-alkyl ethers, phophates, potassium salts

SPECIFIC CHEMICAL NAME:

Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C_{12-15}-alkyl ethers, phosphates, potassium salts

ACCEPTABLE MASKED NAMES:

potassium salts masked:

Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C_{12-15}-alkyl ethers, phosphates, metal salts

C_{12-15}-alkyl group masked:

Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, monoalkyl ethers, phosphates, potassium salts

1,2-ethanediyl masked:

Poly(oxyalkylenediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C_{12-15}-alkyl ethers, phosphates, potassium salts

Justifying the Use of Additional Masking

Submitters who determine that strict application of these guideline procedures would not adequately mask the confidential substance identity may propose a masked name which disguises the substance identity to a greater extent than provided for by the previously described procedures. Such additional masking should be substantiated in a written statement, headed **Justification for Additional Masking** and attached to a Form B. All attachments should include the Form Number which appears on the upper left-hand side of the form. The statement should be prepared in the following manner:

1) Construct each reasonably applicable masked name developed following the procedures described previously.

2) For each masked name constructed, discuss the reason why the name is inappropriate for listing in the **Substance with a Confidential Identity** portion of the DSL. For example, the number of substances encompassed by the masked name may be very small. Or, the masked name may still reveal information about the substance which in and of itself formed the basis for the confidential substance identity claim. Such reasons should be clearly explained.

3) Select a suitable masked name which disguises two aspects of the substance identity. If such double masking is perceived as still inappropriate, state the reason for rejecting each reasonably applicable doubly masked masked name before proceeding to propose a name that masks three or more aspects, of the substance name.

Appendix IV

Environment Canada Contact Points

Environment Canada Headquarters

Individuals with technical questions on the Domestic Substances List or on reporting for the Domestic Substances List should contact Environment Canada Headquarters. Inquiries, as well as requests for copies of the Domestic Substances List Report Forms and additional copies of this document should be directed to:

Domestic Substances List Project
Environment Canada
Ottawa, Ontario
K1A OH3

Toll free number: 800-567-1999
Telecopier: (819) 953-7155

Regional Offices

General information on the Domestic Substances List and copies of both the Domestic Substances List Report Forms and this document are available from the Regional Offices of Environment Canada.

For residents of Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick:

Domestic Substances List Project
Environmental Protection - Atlantic
Conservation and Protection
Environment Canada
45 Alderney Drive
Dartmouth, Nova Scotia
B2Y 2N6

(902) 426-5048

For residents of Quebec:

Domestic Substances List Project
Environmental Protection - Quebec
Conservation and Protection
1179 rue de Bleury
Montreal, Quebec
H3B 3H9

(514) 283-2349

For residents of Ontario:

Domestic Substances List Project
Environmental Protection - Ontario
Conservation and Protection
25 St. Clair Avenue East
Toronto, Ontario
M4T 1M2

(416) 973-1071

For residents of Manitoba, Alberta, Saskatchewan and the Northwest Territories:

Domestic Substances List Project
Environmental Protection - Western and Northern
Conservation and Protection
Environment Canada
4999-98th Avenue
Edmonton, Alberta
T6B 2X3

(403) 468-8034

For residents of British Columbia and the Yukon:

Domestic Substances List Project
Environmental Protection - Pacific and Yukon
Conservation and Protection
Environment Canada
Kapilano 100 - Park Royal South
West Vancouver, British Columbia
V7T 1A2

(604) 666-3601

Appendix V

CEPA Relevant Sections

INTERPRETATION

Definitions

3. (1) In this Act,

"substance" «*substance*»

"substance" means any distinguishable kind of organic or inorganic matter, whether animate or inanimate, and includes

(*a*) any matter that is capable of being dispersed in the environment or of being transformed in the environment into matter that is capable of being so dispersed matter or that is capable of causing such transformations in the environment,

(*b*) any element or free radical,

(*c*) any combination of elements of a particular molecular identity that occurs in nature or as a result of a chemical reaction, and

(*d*) complex combinations of different molecules that originate in nature or are the result of chemical reactions but that could not practicably be formed by simply combining individual constituents,

and, except for the purposes of sections 25 to 32, includes

(*e*) any mixture that is a combination of substances and does not itself produce a substance that is different from the substances that were combined,

(*f*) any manufactured item that is formed into a specific physical shape or design during manufacture and has, for its final use, a function or functions dependent in whole or in part on its shape or design, and

(*g*) any animate matter that is, or any complex mixtures of different molecules that are, contained in effluents, emissions or wastes that result from any work, undertaking or activity;

"transient reaction intermediate" «*intermédiaire de réaction*»

"transient reaction intermediate" means a substance that is formed and consumed in the course of a chemical reaction;

Substances New to Canada

Domestic Substances List

25. (1) The Minister shall compile a list, to be known as the Domestic Substances List, and the List shall specify all substances that the Minister is satisfied were, between January 1, 1984 and December 31, 1986,

(*a*) manufactured in or imported into Canada by any person in a quantity of not less than 100 kg in any one calendar year; or

(*b*) in Canadian commerce or used for commercial manufacturing purposes in Canada.

Non-domestic Substances List

(2) The Minister shall compile a list, to be known as the Non-domestic Substances List, and the List shall specify substances other than the substances referred to in subsection (1).

Amendment of Lists

(3) Where the Minister includes a substance on the Domestic Substances List and subsequently learns that, between January 1, 1984 and December 31, 1986, the requirements set out in paragraphs (1)(*a*) and (*b*) were not met, the Minister shall delete the substance from the List and may add it to the Non-domestic Substances List.

Publication of Lists

(4) The Minister shall publish in the *Canada Gazette* the Domestic Substances List, the Non-domestic Substances List and any amendments to those Lists.

Manufacture or import of substances

26. (1) Where a substance is not specified on the Domestic Substances List and subsection (2) does not apply, no person shall manufacture or import the substance unless

(*a*) the person has provided the Minister with the prescribed information on or before the prescribed date; and

(*b*) the period for assessing the information under section 28 has expired.

Transitional provisions

(2) Where a person has, between January 1, 1987 and the day on which subsection (1) comes into force, manufactured or imported a substance that is not specified on the Domestic Substances List, the person shall not manufacture or import the substance after the day on which subsection (1) comes into force unless, within one hundred and eighty days after that day or on or before the prescribed date, the person provides the Minister with the prescribed information in respect of the substance.

Application

(3) Subsections (1) and (2) do not apply in respect of

(*a*) a substance that is manufactured or imported for a use that is regulated under any other Act of Parliament that provides for notice to be given prior to the manufacture, import or sale of the substance and for an assessment of whether it is toxic;

(*b*) transient reaction intermediates that are not isolated and are not likely to be released into the environment;

(*c*) impurities, contaminants and partially unreacted materials the formation of which is related to the preparation of a substance;

(*d*) substances produced when a substance undergoes a chemical reaction that is incidental to the use to which the substance is put or that results from storage or from environmental factors; or

(*e*) a substance that is manufactured or imported in a quantity that does not exceed the maximum quantity prescribed as exempt from this section.

Waiver of information requirements

(4) On the request of any person to whom subsection (1) or (2) applies, the Minister may waive any of the requirements for prescribed information if

(*a*) in the opinion of the Ministers, the information is not needed in order to determine whether the substance is toxic;

(*b*) a substance is to be used for a prescribed purpose or manufactured at a location where, in the opinion of the Ministers, the person requesting the waiver is able to contain the substance so as to satisfactorily protect the environment and human life; or

(*c*) it is not, in the opinion of the Ministers, practicable or feasible to obtain the test data necessary to generate the information.

Publication of notice of waiver

(5) The Minister shall publish in the *Canada Gazette* a notice stating the name of any person to whom a waiver is granted and the type of information to which it relates.

Correction of information

(6) A person who has provided information under this section or section 27 or 29 shall notify the Minister of any corrections to the information as soon as possible after learning of them.

Notification of excess quantity

(7) Where a person manufactures or imports a substance in accordance with this section in excess of any quantity referred to in paragraph 30(1)(*b*), the person shall, within thirty days after the quantity is exceeded, notify the Minister that it has been exceeded.

Prohibition of activity

27. (1) Where the Minister has reasonable grounds to believe that a person has manufactured or imported a substance in contravention of subsection 26(1), the Minister may, in writing, require the person to provide the prescribed information and prohibit any activity involving the substance until the expiration of the period for assessing the information under section 28.

Idem

(2) Where the Minister has reasonable grounds to believe that a person has manufactured or imported a substance in contravention of subsection 26(2), the Minister may, in writing, prohibit any activity involving the substance until the prescribed information is provided to the Minister.

Waiver of information requirements

(3) On the request of any person required under subsection (1) to provide prescribed information, the Minister may waive any of the requirements for prescribed information if one of the conditions specified in paragraphs 26(4)(*a*) to (*c*) is met.

Publication of notice of waiver

(4) The Minister shall publish in the *Canada Gazette* a notice stating the name of any person to whom a waiver is granted and the type of information to which it relates.

Assessment of information

28. (1) Subject to subsection (4), the Ministers shall, within the prescribed assessment period, assess information provided under subsection 26(1) or otherwise available to them in respect of a substance in order to determine whether it is toxic.

Idem

(2) Subject to subsections (3) and (4), the Ministers shall assess information provided under subsection 27(1) or otherwise available to them in respect of a substance in order to determine whether it is toxic.

Time for assessment

(3) An assessment of information under subsection (2) shall be made following the date on which the information is provided within a period that does not exceed the number of days in the prescribed assessment period.

Extension of assessment period

(4) Where the Ministers are of the opinion that further time is necessary to assess any information, the Minister may, before the expiration of the assessment period referred to in subsection (1) or (3), extend the period for assessing the information, but the extension shall not exceed the number of days in the prescribed assessment period.

Notification of extension

(5) Where the Ministers extend the period for assessing information, the Minister shall, before the expiration of the assessment period referred to in subsection (1) or (3), notify the person who provided the information.

Action to be taken after assessment

29. (1) Where the Ministers have assessed any information under section 28 and they suspect that a substance is toxic, the Minister may, before the expiration of the period for assessing the information,

(*a*) permit any person to manufacture or import the substance, subject to such conditions as the Ministers may specify;

(*b*) prohibit any person from manufacturing or importing the substance; or

(*c*) request any person to provide such additional information or submit the results of such testing as the Ministers consider necessary for the purpose of assessing whether the substance is toxic.

Additional information or testing

(2) Where the Minister requests additional information or test results under paragraph (1)(*c*), the person to whom the request is directed shall not manufacture or import the substance unless

(*a*) the person provides the additional information or submits the test results; and

(*b*) the period for assessing information under section 28 has expired or a period of ninety days after the additional information or test results were provided has expired, whichever is the later.

Variation of conditions and prohibitions

(3) The Minister may vary or rescind a condition or prohibition specified or imposed under paragraph (1)(*a*) or (*b*).

Expiration of prohibition

(4) Any prohibition on the manufacture or import of a substance imposed under paragraph (1)(*b*) expires two years after it is imposed unless, before the expiration of the two years, the Governor in Council publishes in the *Canada Gazette* a notice of proposed regulations under section 34 in respect of the substance, in which case the prohibition expires on the day on which the regulations come into force.

Publication of conditions and prohibitions

(5) Where the Minister specifies, imposes, varies or rescinds any condition for or prohibition on the manufacture or import of a substance, the Minister shall publish in the *Canada Gazette* a notice setting out the condition or prohibition and the substance in respect of which it applies.

Amendment of Lists

30. (1) The Minister shall add a substance to the Domestic Substances List and, if it appears on the Non-domestic Substances List, delete it from that List where

(*a*) the Minister has been provided with information in respect of the substance under section 26 or 27 and any additional information or test results required under subsection 29(1);

(*b*) the Ministers are satisfied that the substance has been manufactured in or imported into Canada by the person who provided the information in excess of

(i) 1 000 kg in any calendar year,

(ii) an accumulated total of 5 000 kg, or

(iii) the quantity prescribed for the purposes of this section; and

(*c*) no conditions specified under paragraph 29(1)(*a*) in respect of the substance remain in effect.

Idem

(2) Where the Minister adds a substance to the Domestic Substances List and subsequently learns that the substance was not manufactured or imported as described in subsection (1), the Minister shall delete the substance from the Domestic Substances List and, if it had been deleted from the Non-domestic Substances List, the Minister shall add it to that List.

Publication of masked name

31. Where the publication under this Part of the explicit chemical or biological name of a substance would result in the release of confidential business information in contravention of section 20, the substance shall be identified by a name determined in the prescribed manner.

Regulations

32. (1) The Governor in Council may, on the recommendation of the Ministers, make regulations

(*a*) defining substances or establishing groups of substances for the purposes of the provision of information under section 26 or 27, including groups of biotechnology products, polymers, research and development substances and substances manufactured only for export;

(*b*) prescribing maximum exempt quantities for the purposes of paragraph 26(3)(*e*);

(*c*) prescribing information that shall be provided to the Minister under subsection 26(1) or (2) or section 27;

(*d*) prescribing dates before which information shall be provided under subsection 26(1) or (2);

(*e*) prescribing the purpose for which a substance must be used so as to permit the waiver of information requirements under subsection 26(4);

(*f*) prescribing periods within which the Minister shall assess information under subsection 28(1);

(*g*) respecting the conditions, test procedures and laboratory practices to be followed in developing test data on a substance in order to comply with the information requirements of section 26 or 27 or requests for information under paragraph 29(1)(*c*);

(*h*) prescribing quantities for the purposes of section 30;

(*i*) prescribing the manner of determining a name for a substance for the purposes of section 31; and

(*j*) generally for carrying out the purposes and provisions of sections 25 to 31.

Prescribed assessment period

(2) For the purposes of sections 26 and 28, where no assessment period is prescribed with respect to a substance, the prescribed assessment period is ninety days after the Minister is provided with the prescribed information.

Prescription of quantities

(3) Regulations made under paragraph (1)(*b*) or (*h*) may prescribe quantities in respect of a substance in terms of

(*a*) whether or not a substance is on the Non-domestic Substances List or is a member of a group of substances established by regulations made under paragraph (1)(*a*); or

(*b*) the purposes for which a substance is manufactured or imported.

Prescription of information and assessment periods

(4) Regulations made under paragraph (1)(*c*), (*d*) or (*f*) may prescribe information, dates or periods in respect of a substance in terms of

(*a*) whether or not a substance is on the Non-domestic Substances List or is a member of a group of substances established by regulations made under paragraph (1)(*a*);

(*b*) the purposes for which a substance is manufactured or imported; or

(*c*) the quantity in which a substance is manufactured or imported.